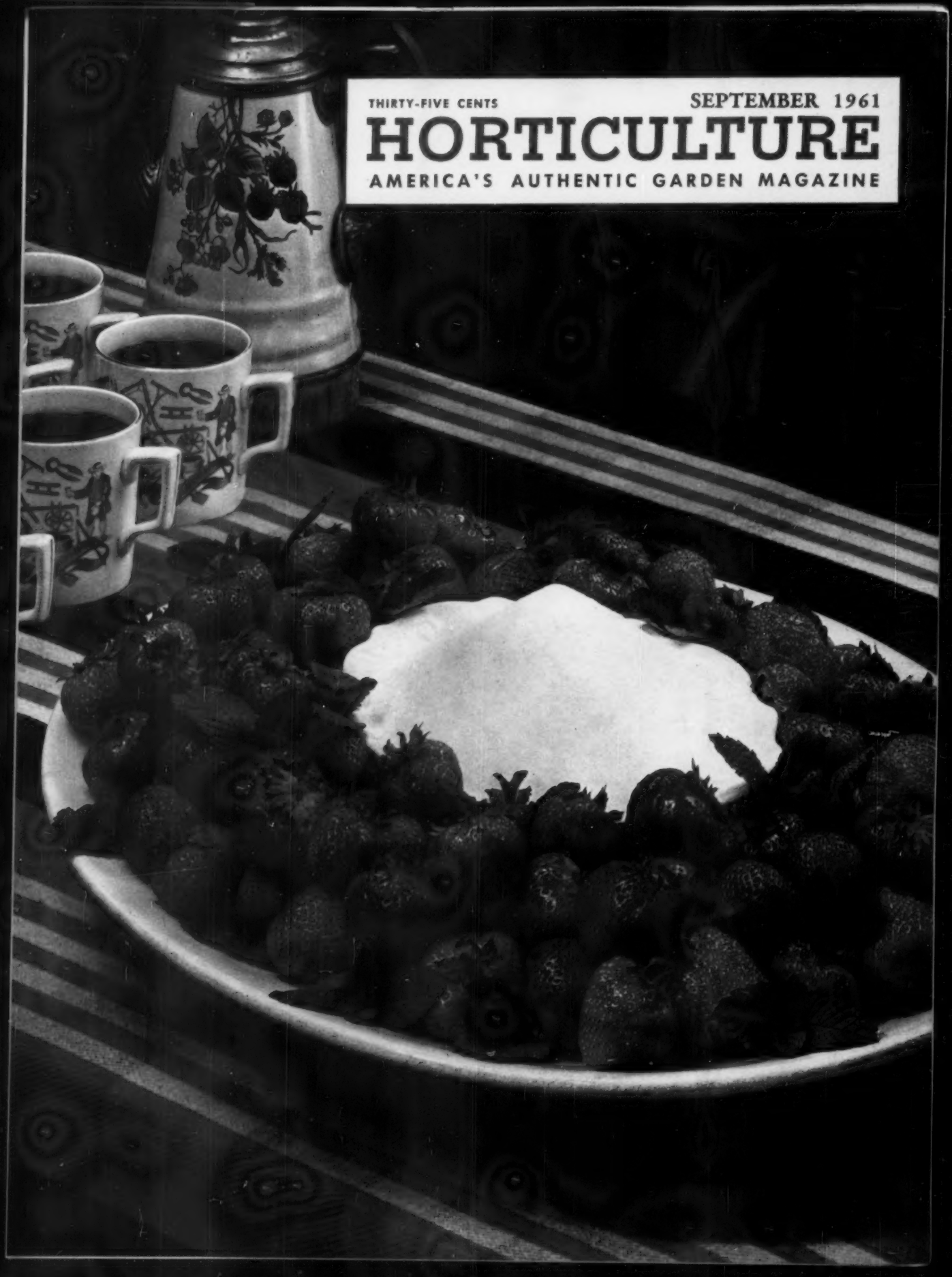


THIRTY-FIVE CENTS

SEPTEMBER 1961

HORTICULTURE

AMERICA'S AUTHENTIC GARDEN MAGAZINE

BANEBERRIES

DIANE ROBERSON
Elma, Iowa

THE WHITE baneberry, *Actaea alba* (*pachypoda*), grows wild in moist, rich woods from Canada to Georgia and west as far as Oklahoma. The plant is also known as snakeberry, necklaceberry, dollseyes and white cohosh.

The fuzzy, white flowers appear in May and June. They are not particularly showy but the central masses of projecting white stamens are interesting. In late summer the berries attract much attention. They are waxy-white with a black-purple spot that is the remains of the stigma. It's easy to tell when the berries are fully ripe—the thick stem on each berry turns red.

It's hard to believe that such a pretty package could enclose something bad, but the berries are poisonous.

Another variety, *Actaea rubra*, has red berries. *Spicata*, called black baneberry, is native to Europe and Japan and has spirea-like foliage and modest plumes of white or bluish flowers. Its high season, like the others, is autumn when the berries turn purplish-black.

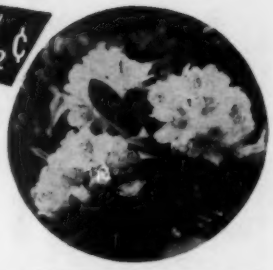
The erect, bushy perennial herbs grow two to three feet tall and have large leaves. They grow wild in North America, Asia and Europe. The word, Actaea, indicates the elder-like leaflets, and is derived from *aktea*, the Elder.

The plants are useful for shady spots in the rockery, the border and in wild gardens or along the edges of woods. Plant in early fall or spring in a partially shaded place. A woodsy soil or ordinary soil to which leaf mold has been added is suitable. Clumps may be lifted, separated and replanted in the spring. ::

Above—white baneberry in bloom

Opposite—the showy berries of this variety

RHODODENDRONS LOW AS 49½¢



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HORTICULTURE
America's Authentic Garden Magazine

CONTENTS • SEPTEMBER 1961

Vol. XXXIX No. 9

Baneberries	Diane Roberson	435
Next Month's Features and About Our Color		437
Letters to Editor		439
Green Welcoming Spot	Joan Mahoney	440
Waterlily or Lotus?	Lorene O. Pinney	441
Rose Survival in the North Prairie	Percy H. Wright	442
Coming Events		443
Dwarf Rosemary	Mrs. Bruce Chalfin	444
Give Your Lawn Attention Now	Harry Gleason	445
Readers' Questions Answered		446
The Values of the Common Milkweed	Gladys Reed Robinson	447
The Best Grapes for Your Area	Peter Tew	449
Glamor Gals of the Daffodil Patch	Rose Tenent	450
New Roses and AARS Winners	Fred Anderson	453
For Blooms in Spring, Plant Bulbs in Summer	Veronica M. Quist	454
Plant a Windbreak	Mrs. Francis T. P. Plimpton Jr.	456
Gardens Give Life to Neglected Areas	Barbara E. Leighton	457
Here's how-to-grow Better Evergreens	Betty Brinhart	458
Propagating Rhododendrons	Dr. A. F. Serbin	460
Greenhouse Gardening—all-year Hobby	Mrs. Ray W. Lauchis	462
Imagine—Lily of the Valley for Holiday Giving	Gene Utz	463
Hollies in Landscaping	John M. Fogg Jr.	464
Old Roses Still Have Charm	Mark Taylor	466
Sunflowers . . . a Diversified Family		471
Pacific Coast Iris	Marguerite N. Davis	472
Observations About Lilacs	Sven Nilson	474
Blackberry Lily	Prof. Clark L. Thayer	475
Now is the Time		478
Clubs and Societies		480
Massachusetts Horticultural Society		480
Pennsylvania Horticultural Society		480
What's Current		482
Horticulture's Garden Club Yearbook Contest Rules		483
New Books		484
Traveling Tips for Rose Bushes	Doris W. Weinsheimer	486

OUR COVERS

Front—Fresh, succulent strawberries wait to be frosted with sugar to go with coffee at Carmel Valley, California—Bell
Inside Front—The colorful, poisonous fruit of the white baneberry—Franklin
Back—The autumn foliage of aspens reflects the sun at Ouray, Colorado—Bell

COLOR INSERTS

Page 451—*Viburnum wrighti compactum*—new dwarf, compact form of *wrighti*, developed by Case Hoogendoorn—Genereux
Page 452—All-America Rose Selections Winners for Fall Planting
Page 469—Two charming rose arrangements: left, by Myra J. Brooks—Roche; right, by Mrs. Robert Moore—Genereux
Page 470—Russian Giant sunflower (*Helianthus annuus*)—Vondell

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NEXT MONTH

FUNDAMENTALS of JAPANESE FLOWER ARRANGING

☆

TERRARIUM FERNS

☆

WHAT IS HARDINESS?

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HOW TO CHOOSE LILACS

☆

PLANTS FOR SHADY SPOTS

About our Color

Front Cover—What could be a better dessert than red, luscious strawberries frosted with sugar and topped off with a cup of good coffee? Mint leaves add color and aroma. The delicious red berry is not actually the fruit—the tiny seeds are the true fruits. The strawberry is a low-growing perennial which can be grown throughout the United States and parts of Canada.

Inside Front Cover—Spikes of white baneberries brighten the fern-like autumn foliage. The plants grow wild in North America, Asia and Europe. The berries are poisonous.

Back Cover—A pleasant path to take when carrying out an autumn errand. The Colorado sun highlights the chalky bark and yellow leaves of the aspens. The distant mountains provide a backdrop for Nature's most colorful season—the undisturbed naturalness of autumn.

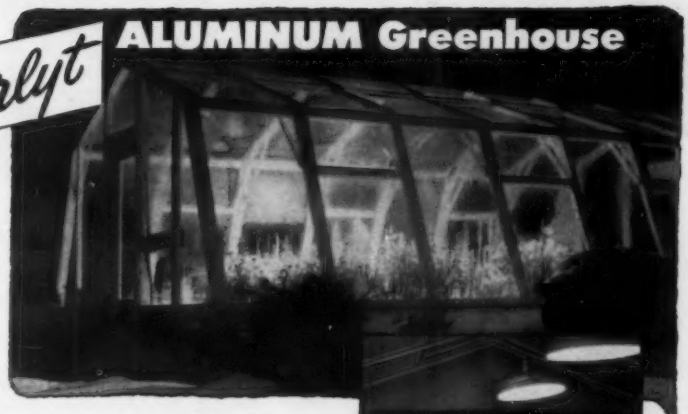
Insert 1—*Viburnum wrighti compactum.*

Insert 2—Three of the four All-America Rose Selection winners—
John S. Armstrong, Grandiflora, introduced by Armstrong Nurseries
King's Ransom, Hybrid Tea, introduced by Jackson & Perkins Co.
Christian Dior, Hybrid Tea, introduced by Conard-Pyle Co.

Insert 3—The traditional will always be a part of flower arranging. Colors taken from a painting or colors accenting each other—the right touch will merit an award every time.

Insert 4—The Russian Giant sunflower spills its pollen onto the huge leaves below. It is an easy plant to grow—any soil or exposure will do. Sunflower seeds are used for salad and cooking oils, and for bird seed. When salted and roasted, the seeds make excellent tidbits for snacks.

Orlyt ALUMINUM Greenhouse



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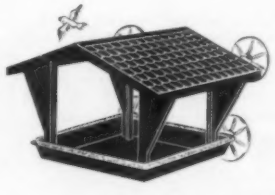

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LETTERS to the Editors

Tapes Covers to Cupboards

Dear Editor—Regarding a special place to mount HORTICULTURE covers, no special place is really needed. For years I have taped mine inside the large glass doors of my kitchen cupboards. Some of my favorite covers, autumn scenes, have been up there almost ten years and others vary according to the season. Whatever the weather, whatever the time of year, I always have the most beautiful scenes and flowers right before my eyes!

Over two dozen magazines regularly come into our house, but yours is the one I wouldn't do without. Thank you for an excellent job.

MRS. C. H. KNICKERBOCKER,
Bar Harbor, Me.

Source of Yellow Violets

Dear Editor—Mrs. G. Hamilton (July, 1961) wanted to know where she could get yellow violets. Wake Robin Farm, Route 1, Box 33, Home, Pennsylvania, has downy yellow and smooth yellow violets. They send nice sized clumps.

MRS. ALFRED J. BOHL, Elmhurst, Ill.

Thanks for Violets

Dear Editor—I would like to take this opportunity to thank those who wrote me about the yellow violets. I received about fifty letters and many people sent me the seeds.

I am very grateful to all that took the time to write me, and hope you will print this as it will take too much time to write to every one. I am still receiving letters from readers of your wonderful magazine.

MRS. G. HAMILTON, Wilmington, Mass.

Transfer Flowers To Dry

Dear Editor—In the article on methods of drying plant material in the July issue, does the author mean to lift the flowers directly after fluffing borax and meal on, as she says, or should the flowers be kept in the mixture for a period of time?

We have had excellent results drying flowers in borax and soap powder.

MRS. R. S. ROSE, Wilmot Flat, N.H.

I assume that after the flowers are well covered with borax and meal they should be transferred to another carton to dry thoroughly.—ED.

Stake Forsythia Below Snow

Dear Editor—Each year my Forsythia blossoms on those branches below the snow line. This fall I intend staking my plants down close to the ground to protect blossom buds from the cold. This might be a suggestion to pass on to those living in New Hampshire and points north.

REV. S. N. MCCAIN JR.,
Newport, New Hampshire.

False Nursery Advertising

Dear Editor—The Federal Trade Commission stops shenanigans in the nursery business as well as in other fields, but only after the advertiser has squeezed all possible mileage from his gyp ads. The advertiser is very happy to comply after that particular advertising campaign has sold all it can, because he goes off on another tack with the Federal Trade Commission following several months behind. These cease and desist orders are a joke insofar as protecting the consumer is concerned.

These gyp outfits prosper because the world is full of suckers who will not take the trouble to inform themselves and who believe all the advertising they read.

SUBSCRIBER, Geneva, New York

Camellias in the North

Dear Editor—In your June "Readers' Questions Answered" I was interested in the query pertaining to camellias. I grow two small bushes of Japanese stock, an *elegans chandleri* and a C. M. Wilson outdoors year 'round. In spite of the severe winter last year they are a delight with five blooms on one and ten on the other.

MRS. DONALD H. OWENS,
Chatham, Mass.

Asparagus "Fallacy" Correct

Dear Editor—The concise article "Fallacy," in HORTICULTURE, April, 1961, is correctly titled. Its contents should help many home gardeners who have not realized they need not trouble with trench-grown asparagus.

I have had a stand of surface-planted asparagus yielding satisfactorily in my Vermont garden for a decade. In June, 1949, I planted the roots in simple drills and in October of that year the plants were four feet tall and withstood the winter well.

In 1950 I cut no shoots and in 1951 the plants were abundant. Cultivation and fertilizing have been ordinary.

AGNES MILLER, New York, N.Y.

A Beautiful Mystery

Dear Editor—If I didn't see some color photos in a magazine I would soon lose interest in reading that magazine. That color picture of Golden Slippers on the cover of the June issue makes the whole magazine something of a beautiful mystery. I also find HORTICULTURE helpful in landscaping my yard in pleasing color harmony. I believe people are more color conscious now than they were 50 years ago. Here in Portland we are using drifts of one color, or blends of one color that I think are prettier than a hodge-podge of many colors.

MRS. W. T. SLEASMAN, Portland, Ore.

see page 479

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Green Welcoming Spot

JOAN MAHONEY
Arlington, Mass.

THIS WAS THE PROBLEM: Cambridge winters are often gray and dreary and the view from a huge floor-to-ceiling window can be bleak. How to soften that snowy scene?

The answer—a unique circular plant table, built to fit the curve of the big bay window, and rising in tiers, like a fountain of greenery against the snow and ice outside.

This particular plant table stands in the hall of Radcliffe College's Graduate Center, Cambridge, Massachusetts. Designed in America and constructed in England it is the first object visitors see as they enter the Center, and it's an eye-catcher. The table is silhouetted against the window, with clusters of flowering plants poised against greens and ivy.

The table is five feet high, and built like a giant wedding cake. Three tiers rise above a graceful base, the largest at the bottom, and smallest at top. The bottom tier, a circle about four yards 'round, holds a series of shallow, curved green metal pans, filled with pebbles and water. Potted plants are in the pans.

The two smaller shelves or tiers are made of glass.

Plants on the table change with the months. There are always feathery ferns, green house plants, and ivies that trail from shelf to shelf curving their tendrils toward the floor. And flowering plants mark the seasons; a visitor might find pots of asters or chrysanthemums in the fall, poinsettias at Christmas time, narcissus and tulips in the spring. Begonias and geraniums add touches of color between times.

It is, however, always a plant table—vases of cut flowers are never used.

The table has a southern exposure, but strong sunlight can be controlled by full-length gray and black draw draperies which hang at the window behind.

What makes the Radcliffe table especially attractive is the way it fits into the curve of the bay, and is framed by the window itself. Credit for the idea of the table goes to Bernice B. Cronkhite, former Dean of the Radcliffe Graduate School, who wanted, she said, "a green, welcoming spot" near the front door of the Center. Dean Cronkhite and her husband presented the unusual table to the Center. ::

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Water Lily or Lotus?

LORENE O. PINNEY
Ottawa, Kansas

WHAT looked like a wild, cream-colored water lily in abundant bloom was seen last fall in the backwaters of certain slow-flowing Kansas streams. It was striking in appearance and worth going miles to see. You could gather an armful of the big flowers without getting your feet wet, and they made a showy indoor display with their long-stemmed blossoms and great, round leaves. When the petals finally fell, the seed receptacles, which had turned brown and grown large, were striking in themselves. This exciting native was the yellow lotus, *Nelumbo luteum*.

The fragrant yellow flowers of *N. luteum* are borne singly on long stalks well above the water

Under ideal wild conditions it produces blossoms as large as a dinner plate, and would seem more at home in the tropics than in temperate America. Questions about it came to my mind. Is it a water lily? Can it be cultivated? Thanks to a botanical library, I was able to find the answers. It is not a water lily, but is native to this country and can easily be cultivated.

Instead of being a lily, it belongs to the smaller and more exclusive lotus family, Nelumbo. The yellow lotus (*lutea*) has only one relative, *nucifera*, a native of Asia. Strange that the only two members of the family should be so widely separated geographically.

If no white man had seen a yellow lotus before the discovery of America, Indians for over four centuries had known it well. Some of the Eastern tribes cultivated it in the waters of the Tennessee and Cumberland Rivers and it was abundant on the tributaries of the Mississippi. The seeds are starchy and tough to crack, but squaws learned how to soak them to remove the kernels which they served with meat or mixed with soup. The tubers are also edible and were eaten fresh, or sliced and dried.

The cultivation of *Nelumbo luteum* is simple if three points are kept in mind: first, the tubers should not be transplanted until growth has begun; second, they are heavy feeders, so if grown in an artificial pond they require a mixture of two parts turfy loam to one part rotted cow manure; third, they should be planted below the frost line otherwise they will die. Oh yes—muskrats love them.

Concerning the Asiatic relative, *nucifera*, the word "nelumbo" comes from Ceylon, and *Nelumbo nucifera* is known as the sacred Hindu lotus. It has been found growing near temples, and its likeness is carved on the walls of cave-temples in China, Japan and India. The blossoms are fragrant and vary in color from pink to rose. The tubers are used for food in Japan, much as our American Indians used them.

It is believed the Romans brought the Hindu lotus to Egypt where it was cultivated along the Nile, probably for food. But Nelumbo was not native to Egypt, nor is it found there now in a wild state.

Egyptian lotus is a term that is botanically incorrect, having been misapplied in common use to the water lily, *Nymphaea caerulea*.

In architecture, there is a column with what is known as the Egyptian lotus flower on its capital. The blossom which furnished the inspiration for this capital was mistakenly called lotus and is really a water lily, but no relative to our Nelumbo. Though botanists agree the plant inscribed on tombs and monuments is not a lotus, they are also convinced the use of the word after all these centuries is "so deeply rooted that it probably will never be changed."

Even though the "Egyptian lotus" is a water lily and the American "wild yellow water lily" is a lotus, it is a comfort to know that we can claim such a fine aquatic plant as the yellow lotus as our own. ::

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ROSE SURVIVAL IN THE NORTH PRAIRIE

Percy H. Wright
Saskatoon, Canada

Southward from our location in the far north province of Saskatchewan, tender roses of the hybrid tea, floribunda and other classes are often hilled up with earth for winter protection.

Here in the North the method does not function too well, and we have worked out alternative methods which are more reliable. This raises the question whether our methods would not be good for rose growers south of us.

Hilling up fails here quite often because the rose bark is still green and when hilled, tends to rot. Sometimes this happens when an organic mulch is placed in contact with the bark. Apparently our winters come so suddenly the bark has less time to mature.

Also, when a plant is mounded over snow lodges between the protruding mounds and funnels the cold down into the plant roots. Soil has some insulation value, of course, but not nearly so much as snow. In windy areas snow is not a dependable mulch.

A successful method here in the prairie provinces is to plant the point of union four to six inches below ground. To avoid placing the roots too far into the subsoil, plants are often set semi-recumbent. Rose bark is usually mature enough by spring to be placed in moist soil without danger.

With deep planting, if the roses die back to ground level, they come up in spring from an eye above the point of union—not below it. Thus the named variety is preserved, and the rose does not "turn wild," a phrase used to indicate that the understock alone is alive.

Multiflora rose forms a living wall of blooms and foliage —plant it where there is ample room for development

I have had rose plants kill back to four inches below the ground line and come true to name the following year. When they are killed back that far, of course, they are severely weakened and come up late and weakly.

An objection to deep planting is that it stimulates own-rooting, and that the own-roots of Hybrid Teas are more tender than the roots of Multiflora understock. This is often true. However, in Saskatchewan, the Multiflora roots are so tender it makes little difference whether or not they are replaced

or supplemented by own-roots. The ground must be mulched with straw, slough-hay or some such material to a depth of two feet above and four feet or more on all sides of the plant to protect the roots.

Or, you may dig up some of the own-rooted branches, bring them indoors and pot them. If put in an ordinary root cellar, they will remain dormant for a while. When they start to grow vigorously they may be brought up to a house window and kept growing until spring. Then if the original plant dies, you have not lost everything.

Roses hilled for winter protection

It is a pity hardier understocks are not used for tender roses sold in the prairie provinces of Canada and the adjacent states. A hardy understock ceases activity early in fall, and tends to make the plant budded on it cease activity earlier than otherwise. This encourages maturity of wood which is important for survival over winter.

Occasionally, however, an enthusiastic rose grower will graft his own plants. In 1910, George Bell, who homesteaded in the Vilna district of Northern Alberta, acquired scions of Hybrid Perpetuals. He cut the tops off some wild roses in his farmyard (probably *R. acicularis*, the Arctic rose) to the ground, and grafted the scions upon them.

Each fall he cut the plants back to about a foot, and covered them with a foot of dry sawdust held in a box without top or bottom. Over each box a waterproof sheet was placed to keep the sawdust dry.

I have kept in touch with Mr. Bell since 1932 and when I last heard from him in 1952, the original Hybrid Perpetual plants were still alive. It is difficult to say if this was due to their hardy understocks, excellent protection, or both. Probably they would have winter-killed early if either factor had been absent. In any case the importance of hardy understocks for tender roses is firmly underscored. : :

COMING EVENTS

Aug. 20-24. Montreal, Quebec. Florist's Telegraph Delivery International Convention, Queen Elizabeth Hotel

Aug. 23-24. Minneapolis, Minn. Annual meeting of American Association of Botanical Gardens and Arboretums, Hotel Leamington

Aug. 24. Worcester, Mass. Gladiolus Show, Horticultural Hall

Aug. 25-26. Edwardsville, Pa. Annual Show, West Side Flower Club, Acme Auditorium

Aug. 30. Wickliffe, Ohio. Annual Flower Show—"A Perennial Calendar," Wickliffe Garden Club, Wickliffe City Hall

Aug. 30-31. Middletown, Del. Centennial Week Flower Show, Middletown Garden Club, Bethesda Hall

Sept. 1-9. Syracuse, N.Y. New York State Agricultural and Industrial Exposition, State Fair Grounds

Sept. 2-3. Everett, Wash. Dahlia Show, Snohomish co. Dahlia Society, Pacific Northwest Conference Floral Hall, Forrest Park

Sept. 2-4. Pittsburgh, Pa. Regional Gladiolus Show, Allegheny County Fair, South Park

Sept. 3-4. Newport., R.I. Festival of Flowers, Horticultural Society with the cooperation of Newport County Garden Clubs, Art Association of Newport, Bellevue Ave. Admission 50¢

Sept. 7. Worcester, Mass. Dahlia Exhibition, Worcester County Horticultural Society, Horticultural Hall

Sept. 7-8. Athens, Ohio. State Convention, Ohio Association of Garden Clubs

Sept. 7-8. Superior, Wisconsin. 4th Standard Flower Show—"Faith and Flowers," Indian Head District of Wisconsin Garden Club Federation, New Stack's Store

Sept. 8-9. West Grove, Pa. Conard-Pyle's Red Rose Rent Day

Sept. 9-10. Bergenfield, N.J. Fall Flower Show, Garden Club of Bergenfield, Roy Brown School Gymnasium

Sept. 9-10. Waterbury, Conn. Dahlia Show, Doolittle Hall

Sept. 9-10. Jackson, Mich. Dahlia Show, Michigan Dahlia Association, Frost Intermediate High School

Sept. 10. Peoria, Ill. Annual Rose Show, Greater Peoria Rose Society, St. Philomena Hall

Sept. 15-17. East Orange, N.J. Penn.-Jersey District Meeting and Show, North Jersey Rose Society, Hotel Suburban and Colonial Life Insurance Bldg.

Sept. 16-17. Norristown, Pa. Annual Flower Show—"Milady's Whirl," Norristown Garden Club, U.S. Army Reserve Center

see page 476

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DWARF ROSEMARY

—*a Versatile Herb*

Mrs. Bruce Chalfin
Rustburg, Virginia

While the beauty and praises of common, tall rosemary (*Rosmarinus officinalis*) are often sung, so far little light has been shed on the rare dwarf rosemary (*R. prostratus*). With miniature plants now in the limelight, it is surprising so few gardeners have discovered this versatile herb which grows both inside and outdoors.

Nurseries specializing in a wide assortment of herb plants can probably supply dwarf rosemary at any season of the year. Fall is as good as spring for buying and starting a container-grown specimen.

Rosemary is the symbol of remembrance

The small-scaled rosemary is squat but dainty with a symmetrical shape and branches down-curved. A five-year-old plant may grow 1½′ tall and be equally as broad, but it can be pruned to shorter stature and less width. An exciting suggestion is to trim the pygmy shrub in Bonsai fashion. It is a natural for this Oriental treatment.

Clothed in constant green, the plant is lovely to behold at any season of the year. Its stick-like stems are liberally covered with small, shiny leaves—mere slivers of clear green above the dull gray beneath. Throughout fall and winter the quaint wisps of flowers continue to come in good measure, thick and fast, almost recklessly it would seem.

The prelude to summer brings the only lapse of bloom. But, after resting a few weeks the flowering cycle begins again. At this stage dwarf rosemary takes on a misty guise until the blue buds unfurl completely for their next long session of bloom.

Rosemary foliage possesses a rich lingering of peppery sweetness mingled with spice. This bracing scent is often an ingredient in potpourri mixtures. The leaves make a pleasant herb tea, and the vital oils are often used in commercial preparations. Naturally, the foliage makes an excellent compliment in cookery.

Culturally, dwarf rosemary is extraordinarily easy. On the whole, it has a robust constitution but is tender except in frost-free climates. This variety, like the big rosemary, prefers full sun whether grown as a house or garden plant. In the North, conditions are less favorable, and even in the South the plant should be protected from blustery, cold winds.

In less civil climates wintering in a cold frame is disqualified because rosemary is not hardy in below-zero temperatures. Tall rosemary can be a cranky house plant and its awkward size after a year or so poses the problem of where to winter it over. But, the dwarf form is much better behaved, though it is decidedly tender in most areas. Mild, arid conditions suit it well.

In winter, the herb must be taken indoors or into a home greenhouse which is the best berth for the coldest months because it balks at rationed sunlight.

However, if only house hospitality is available, pamper the plant and feed with a fertilizer solution at spaced intervals. When pot-bound, which may occur after two years, change to a bigger pot, using well limed soil with good drainage. Above all be frugal with water, for the plant will not stand a water-logged state. Place the pot out of strong wind currents. A protected, sunny terrace is ideal. Rosemary may also be put in the open ground, choosing a sun-lit spot with a slight slope. The arched branches often take root, supplying small stock layerings for fall potting.

It is only fair to warn growers that a garden-grown plant is not so docile as a

see page 477

If Your Lawn Needs Attention

START NOW

HARRY GLEASON
Columbus, Ohio

Right—grass is a good bluegrass mixture
Left—results of an inferior mixture

IN MOST OF THE COUNTRY fall is the time to remake or refurbish the lawn. Whether remaking is necessary or not, the autumn lawn deserves attention. It has just been through the most difficult period of the year, for grasses do not benefit from heat and drought. But now nights are cooler and the better lawn grasses such as bluegrass and fescue renew their interest in growing and we should give them every assistance.

In New England, the North Atlantic States, the North Central area and the Northwest, bluegrasses and fescues are the preferred lawn grasses. Similarly they are desirable west of the Mississippi and north of Texas, if irrigation is available. Even in the section between Southern Ohio, Indiana, Illinois and Missouri and the northern edge of Mississippi, Alabama and Georgia, these cool season grasses will prosper with special care. They must have careful fertilization and not be mowed shorter than 1½". Elsewhere in the South, the Zoysias and Bermudas are basic permanent turfs with the cool season grasses used annually as winter green.

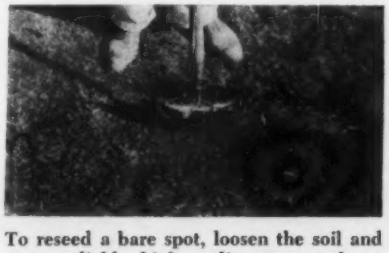
Since the bluegrasses and fescues are suitable to much of the country, every cultural effort should be made to provide favorable conditions for them. In late summer both exhibit a new zest for life. This should be abetted by supplying a proper amount of plant food for optimum response before a freeze checks activity. It is necessary to know both the acidity of the soil and the nutrient content to determine the amount of fertilizer to apply. The agricultural experiment stations in most states have facilities for testing soil samples, both for pH and nutrient content. There usually is no charge for this service—if there is, it is nominal. Wherever you live, it is important to know how the experiment station requires samples to be taken and shipped. An inquiry to them will supply this information.

Most lawn grasses grow best in a soil slightly acid with a pH reading between 6.0 and 7.0. If the reading is below 6.0, finely ground limestone should be applied following the recommendations supplied in the report from the experiment station. Normally, an application of 30 lbs. of ground limestone every three years in the more humid Eastern half of the country is sufficient to maintain proper acidity.

If the tests show a deficiency in nitrogen, phosphoric acid or potash, these should be supplied. Soil deficiencies usually appear in the fall because of the drain on the soil by growth during the previous six months. An application of a complete fertilizer such as a 10-6-4, which means 10% nitrogen, 6% phosphoric acid and 4% potash, should be made at the rate of 15 lbs. to 1,000 sq. ft. This feeding will stimulate sturdy fall growth and carry the grass plants through the winter in robust condition.

Many plants, especially trees and shrubs, stop growth in early fall and the leaves, no longer of use, start falling. An accumulation of leaves on the lawn, especially if matted by rains, does real harm to turf. It is important to rake leaves frequently or better yet, run a lawn sweeper over the turf. Leaves can be easily gathered in the sweeper and transferred to the compost pile and certainly every home gardener should have a compost pile.

Lawn stimulation in September will require one or two additional cuttings. Do not permit lawn grass to go into winter with more than two inches of growth. If it does, there will be matting and considerable turf damage easily noticeable the next spring. ::



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Readers Questions ANSWERED

Why make a lawn in the heat of August? Would it be better to wait until fall?

In August the nights are apt to be cool even though the days are hot. Growth of grass is greater during the night than in the daytime, especially if it is bluegrass or one of the fescues. By making a new lawn late in August the young grass roots become established before freezing weather. This enables them to carry through the winter without damage. In the central band of states winter is delayed and it is possible to make a new lawn in early September and to harden the grass plants before freezing. But, in the northern tier of states it is better to do this job in late August.

I have had a dwarf orange tree for the last year which I have kept in the house. Recently, some of the leaves have become sticky and a few are dropping. What causes this?

I suspect this is due to soft brown scale or some other scale known to attack citrus trees, especially those grown indoors. The stickiness is honeydew, which is exuded by the insect under the scale covering. In a heavy infestation enough of the plant juices are drawn off by the insect to weaken the plant and leaves will drop. This may be controlled by applying two sprays of malathion, seven days apart. Follow the directions on the container.

What is bagasse and what is it good for?

Normally the residue from sugar cane after the juices have been pressed out is called bagasse. Occasionally the residue from sugar beet extractions is also called bagasse. Sugar cane bagasse is an excellent mulch. Wherever it can be obtained reasonably and wherever its light color is not objectionable, it should be used as a mulch because it keeps down weeds, retains moisture and breaks down very slowly.

When do I plant lily bulbs?

Normally lily bulbs are planted in the fall because they mature in late August and early September and October, but with improved methods of storing these bulbs over winter without depreciation, they can also be planted in the spring. The bloom date will be delayed somewhat by spring planting, but other than that it is equally satisfactory.

A friend told me recently that a desirable ground cover for sun or partial shade is the lowbush blueberry. I have gone to nurseries for this and they do not know what I am talking about. Can you help me?

The lowbush blueberry (*Vaccinium angustifolium*) is native to the Northeastern states and Canada. It grows about a foot high and does make an excellent compact ground cover in poor soil. It does poorly in rich humusy soil. The variety *laevifolium* is more compact and produces small sweet blueberries sparsely. Either one is ideal as a ground cover in light, slightly acid soil.

How do I recognize chinch bugs and control them?

Chinch bugs are minute black and white insects most easily discovered in the graying grass around a dead area in the lawn. They are responsible for killing the grass in the dead area by sucking the plant juices from the leaves. They have now spread out and are affecting additional grass in the same manner. Any one of several chemicals can be used such as malathion, chlordane or lindane. Greater control will result if they are spread on in liquid form. Chinch bugs have been most destructive on lawn turf in the Midwest and South. During the present year they are also plentiful in Pennsylvania and New Jersey.

How do I handle everbearing raspberry bushes? In the past I have grown those that produce fruit in June and I cut out the canes as soon as they finish fruiting. But, that cannot be done with the everbearing which yields a crop in the spring and fall.

There are two general methods of maintaining everbearing raspberry bushes which are supposed to produce two crops a year. The spring crop may compete with the crop of the standard raspberries, so many growers cut the canes to the ground early in the spring, forcing heavy new growth on which the fall crop is borne. In this manner, all strength goes into a heavy fall crop. However, if you want two crops, handle your bushes exactly as you would Taylor or Latham. When the spring crop is finished, cut these canes, but save all new growth. This will produce a fall crop and another one the following spring. ::

The Values of the common
MILKWEED

GLADYS REED ROBINSON
Troy, New York

"ITS hidden silk has spun." These few words, taken from Helen Hunt Jackson's poem "September," artfully introduce the lovely *Asclepias syriaca,* or milkweed.

Visualizing *Asclepias syriaca,* you probably think of it as another weed; tall, awkward and just a nuisance. But there is some good in most everything if you seek it and so it is with milkweed.

AUTHOR PHOTOS

Seed pod formation of *A. syriaca*

The milkweed family was named for the Greek god Asclepius—the god of medicine. Logically then, it would seem there was some medicinal value, symbolic or actual, attached to the plant.

The common milkweed has simple stems three to five feet high, with opposite, lanceolate-oblong, petiolate leaves, downy on the under surface. The flowers are sweet-scented and arranged in nodding umbels of pale purple. They are set in an upside-down position making it necessary for bees and other insects to swing below in order to collect the honey. The plant flowers in July and August.

The milkweed pod, or follicle, is covered with sharp prickles, and contains billows of silky seed-down.

When the milkweed is ripe the pod bursts open on one side only, and the seeds become air borne in their silky parachutes. If the seeds come in contact with rain or severe wind and are forced down, they are equipped with a corky substance which converts them from planes to sailboats and they travel with equal ease on the water. This adaptability may account for their wide distribution.

Milkweed in full bloom

Milkweed was a good friend of the American Indians. They would collect the honey of the blossoms and use it as sugar. In the early 1800's the medical profession used the roots for treating asthma and scrofula.

When World War II cut off East Indian supplies of kapok, milkweed floss was used to give buoyancy to life jackets. Also, the stems, if shredded, may be made into a twine and the leaves into paper, and there is a possibility the sticky milk fluid may be used in making adhesives.

Milkweed makes an excellent screen for the flower garden and in fall the dry pods may be dipped in gold or silver paint and used in dried bouquets.

As a child I remember my mother gathering the young plants and cooking them as greens. Care had to be taken that only tender plants were used for we would say that pieces of flannel had been added should an older leaf or two accidentally get into the pot. ::

Ripened pods burst in mid to late fall

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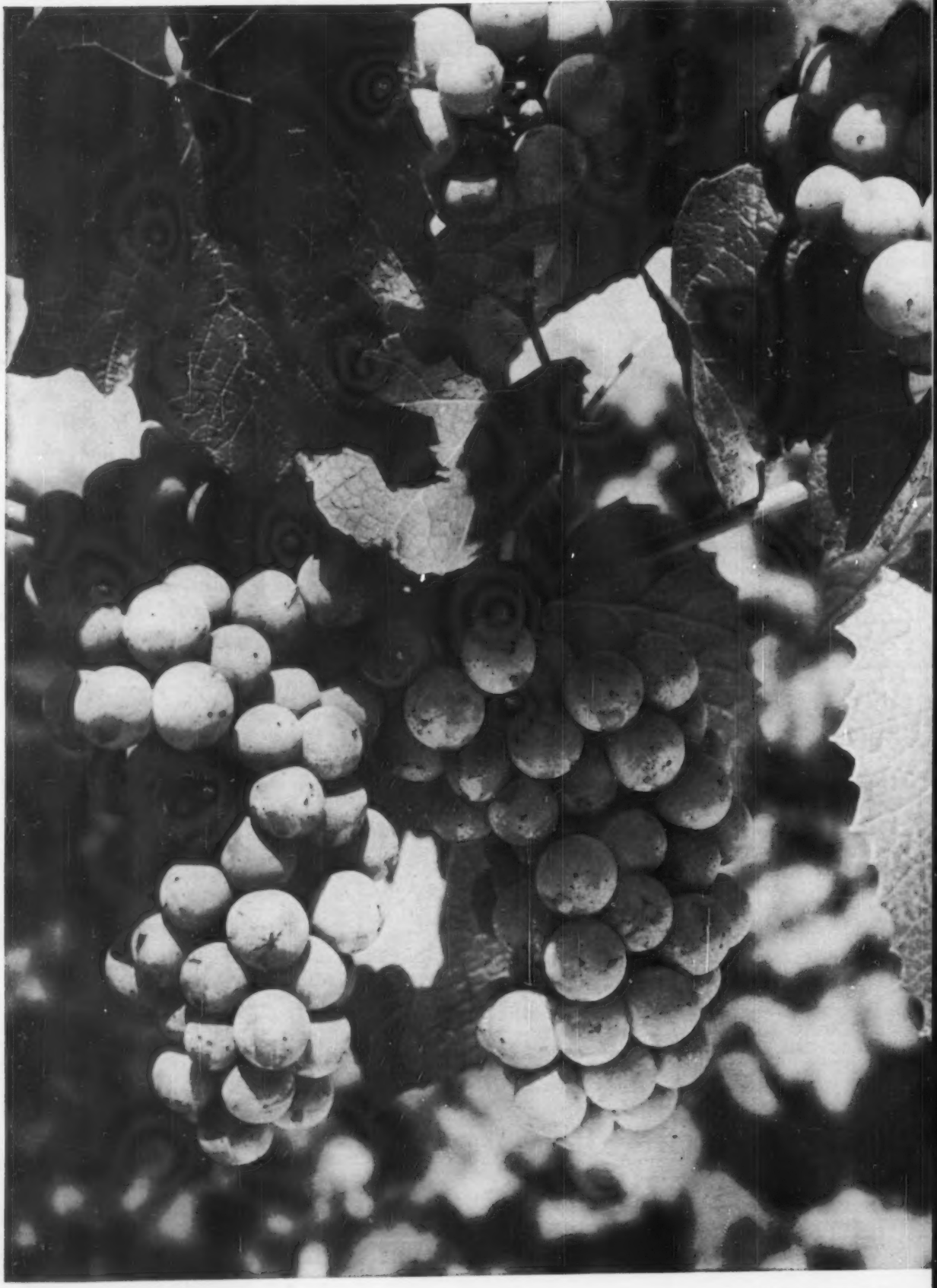


THE BEST GRAPES FOR YOUR AREA

PETER TEW, St. Louis, Missouri

THE GRAPE VARIETIES grown by home gardeners are hybrids or crosses among two or more distinct species. The European wine grape, *Vitis vinifera,* is part of most grape varieties that are used for grape juice and wines. The fox grape—*labrusca,* the muscadine grape—*rotundifolia,* and the Southern summer grape have all been used as parents.

In the past several years an amazing number of varieties has appeared on the market. Some have been produced primarily for the humid Northeast, others for the Prairie States and still more distinctive ones for the West Coast.

The culture of grapes in the home garden does not vary greatly from one section of the country to another. The fruit clusters arise from buds on two-year wood, so growers should strive to produce ample two-year wood to increase the yield. This is brought about by severely pruning the wood that has borne grapes the previous year, plus the addition of ample plant food in the soil to stimulate rapid growth. There is a difference of opinion among commercial vineyard operators as to the time and type of fertilization. These are governed by soil conditions, depth of the soil, amount of soil drainage and the kinds of grapes suitable to the area.

Until recently most varieties grown in the Northeast were basically selections or crosses of native species. Today desirable varieties also have European crosses in them. One of the preferred kinds for the Northeast is Seneca, an early white grape, which is almost purely *vinifera.* Ontario, another desirable white grape for this section, is distinctly American. Delaware is the standard red variety of superior quality. Concord is still predominant as a black grape, even though it is one of the oldest in the area. Buffalo is a mid-season blue dessert grape. Alden is equally fine, as is Steuben which is noted for its spicy flavor.

With the production of seedless varieties suitable for the Northeast, an increasing number of home gardeners is planting Interlaken Seedless and Himrod. These are both early grapes, while Romulus is a mid-season type.

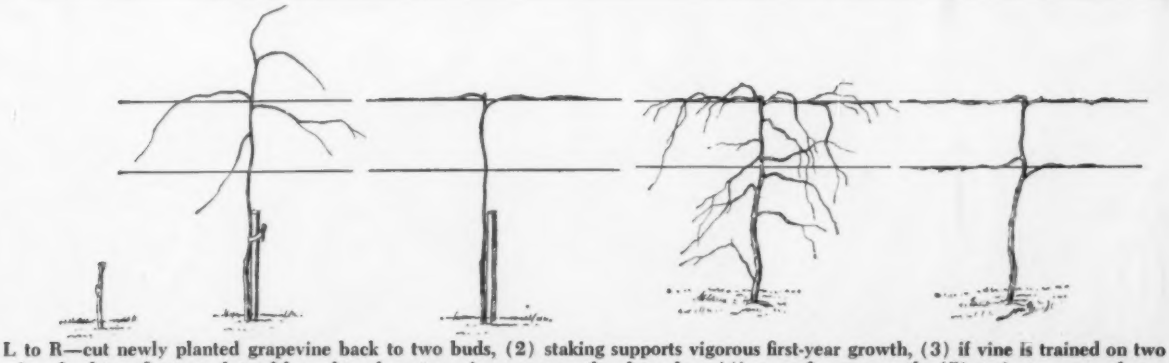
In the Northern part of the Midwest, the grapes grown in the East do not prosper. Winter extremes are too great and many vines are injured. However, there are high quality varieties for the Northern Prairie among which are Beta and Bluejay which thrive as far north as Southern Manitoba. Fredonia, which is popular in the East, and Moore's Early are also hardy. Portland and Lindley do well in many areas.

For the Southern Plains most of the varieties suitable for the East can also be grown with Fredonia, Delaware, Ontario, Urbana and Kendaia among the more popular. Many French hybrid grapes are being grown in the area, especially from Indiana to Missouri. Among those most often seen are Seibel 5279, an early white, and Seibel 13053, a blue grape with medium clusters which is productive of red or rose wine. Couderc, a late mid-season blue, has compact clusters and medium-sized berries. Among the seedless types, Himrod and Concord Seedless are most popular.

In the South, muscadine varieties dominate, with Eden, Scuppernong and Thomas popular. Delaware, Catawba and Moore's Early also thrive.

In the far West the home gardener grows grapes for table use and unfermented juice. The table grapes grown in California are of European species. The natives and hybrids, with *vinifera,* are known as slip grapes because the pulp slips free from the skin but does not in the European grapes. Among the table grapes grown in the far West are Pearl and Csaba, which has a muscat flavor. Delight, a seedless variety, is popular from Vancouver to California, but the most popular table grape is Thompson Seedless, a high quality product. Ribier is a black table grape while Scarlet has less color but equal quality.

In the Northwest, several of the varieties popular in the Northeast also thrive, especially Fredonia, Seneca, Niagara, Delaware and Concord. ::



L to R—cut newly planted grapevine back to two buds, (2) staking supports vigorous first-year growth, (3) if vine is trained on two wires, lead two first-year lateral branches along top wire, remove other branches, (4) second-year growth, (5) train two second-year laterals along bottom wire, remove other second-year growth; after the vine attains this form, train one strong lateral along each wire each year, remove all others

Glamor Gals of the DAFFODIL PATCH

ROSE TENENT,

Surrey, England

FEW NOVELTIES have caused more excitement in the horticultural world than the pink daffodil. Exhibition varieties such as Salmon Trout, Rose Caprice and Pink Monarch are still too expensive to concern many of us. But fortunately, there is also a large number which can be bought quite reasonably, and these make decorative garden flowers.

Into this category falls Rose of Tralee. The perianth petals are beautifully formed, being pure white and pointed, while the trumpet-crown is peach-pink down to the base. It was raised by J. Lionel Richardson, Waterford, Ireland, who also produced Salmon Trout, that exquisite flower with shovel-pointed petals and a long salmon-pink cup.

Rose of Tralee appeared in a remarkable series of pink-cupped seedlings from the self-fertilized White Sentinel, a daffodil featured in breeding many fine varieties. It is white with a pale lemon cup.

The first pink daffodil of any consequence was raised by Mrs. R. O. Backhouse in the 1920's, and was named after her. The perianth is ivory-white and the trumpet a pale apricot deepening to pink at the mouth. It is a gem for pots and bowls and is long lasting.

Another good choice for pots, bowls and vases is Wild Rose. Although a small flower, it is one of the brightest pinks and the cup is a clear rosy shade right down to the base. Nor does the color fade, like some pinks, as the flower ages. It was raised by Brodie of Brodie, who gave us Topic, with its large, whitish crown flushed pink, and Loch Moree, a pale-pink.

Mention should be made of Interim, raised by Guy Wilson, breeder of some of the finest pinks—Lisbreen, Moylena, Roseanna, Passionale and Fintona. Interim has a white, slightly reflexing perianth, the petals of which are slightly incurved. The goblet-cup is greenish-primrose and is banded salmon-pink at the edge. This is a decorative flower, tall-stemmed, vigorous and charming when planted in groups.

Rosario comes from Tasmania, where daffodil enthusiasts are more interested in pinks than any other color group. Rosario was bred by the late C. E. Radcliff, and has a broad, pure-white perianth and trumpet-shaped, frilled crown. The base color of the crown is pale primrose but this soon develops into a rich, rose pink. Most pink daffodils require two or three days to develop their proper color.

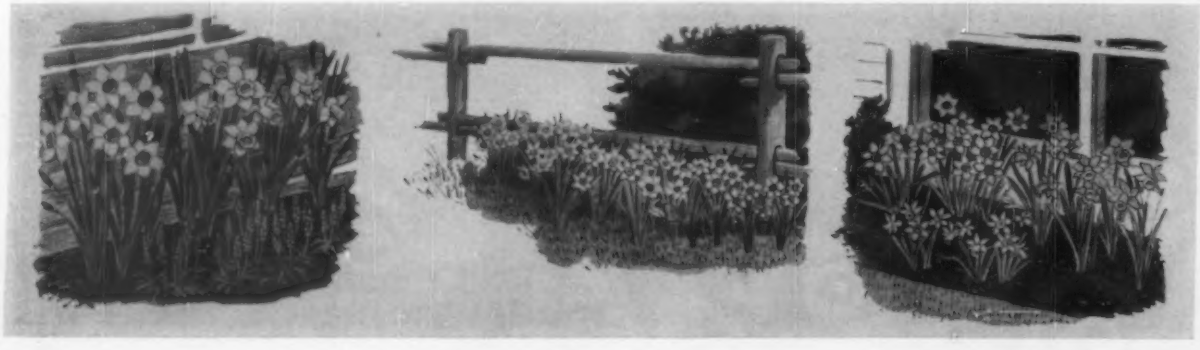
The purest pink yet raised is Guy Wilson's Passionale, from Rose of Tralee. Introduced in 1959, it has already won several first-class awards and there seems little doubt about its future. With its perianth of long flat petals, overlapping to half their length, and long gently-frilled pink cup, it is indeed charming. At present it is costly, but Fortune was once expensive too, now thousands of bulbs are sold yearly.

Another show star is Rima, a daffodil developed in the United States. It has smooth, perfectly flat, white petals and a trumpet of lilac-toned pink. Bred by Grant Mitch, it is one of his best pinks and is presently still expensive.

Among the lower-priced varieties are Pink Fancy, Pink Glory and Pink Rim. The first has an overlapping white perianth and apricot cup broadly margined with soft pink. The second is a trumpet variety, the inside of which is deeper pink than the outside. The third has a soft cream cup and pink rim. All are good cut flowers.

There are also some scented pink daffodils. Louise de Coligny has a slightly reflexing white perianth and a trumpet-shaped crown of apricot-pink. Siam has a frilled cup of apricot tint which changes to a soft pink as the flower develops. Both have a delicious fragrance and are borne on long stems.

Somewhat more expensive, but not exorbitant, are Pink Isle, Pensive and Pink Smiles. Pink Isle is a medium-sized flower with a flat pure white perianth. The crown is a pleasing pink, unspoiled by any dullness or copper; nor does the color fade. Pensive has a broad, pure white perianth of unusually smooth finish, and a medium-length crown which is flushed shell-pink. Pink Smiles has a rich amber-pink crown of almost trumpet length. The petals are broad and spreading. ::



AARS Winners

THREE of the four All-America Rose Selections winners for 1962 are here presented. The other, Golden Slippers, an origination of Peterson & Dering, graced the front cover of the June 1961 issue.

John S. Armstrong
Introduced by Armstrong Nurseries

King's Ransom
Introduced by Jackson & Perkins Co.

Christian Dior
Introduced by Conard-Pyle Co.

NEW ROSES for fall planting

FRED ANDERSON

Golden Slippers

AARS WINNERS

FOUR new roses have been acclaimed the All-America Rose Selection winners for 1962 following months of highly competitive test garden trials throughout the United States.

Sharing the winner's spotlight, this year's awards went to—Christian Dior (Conard-Pyle), Golden Slippers (Peterson & Dering), John S. Armstrong (Armstrong Nurseries) and King's Ransom (Jackson & Perkins).

Christian Dior is a tall Hybrid Tea with a medium-large pointed bud which later opens into a crimson-red and iridescent scarlet blossom. Bloom color remains steadfast regardless of weather and is further enhanced by dark, lustrous foliage. Christian Dior has a light, tea-like fragrance and is excellent as a cut flower.

Dark, velvet-red blooms mark John S. Armstrong as a standout among Grandifloras. From bud to bloom the intense deep red color is carried throughout. Flowers are clustered in true Grandiflora style and have long individual stems making them ideal for cut flowers or arrangements. The bush grows 4-5′ high and has approximately the same width.

Blooms 5-6″ wide are the dominating characteristic of King's Ransom, a chrome-yellow Hybrid Tea of marked distinction. Buds are large, long and slender and carry the distinctive chrome-yellow coloring. Flowers are borne on long stems above the foliage and have high, full centers. The bush grows 3-4′ tall, attaining that height

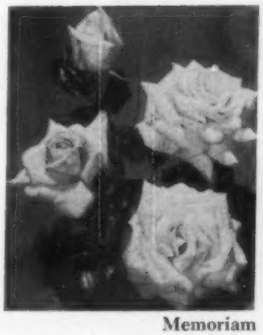
see page 477

Avon

IT'S FALL again and with summer's glow fading we have many garden chores ahead. All of them are not routine, however, and one is a distinct pleasure—the selection of roses from new varieties being introduced this fall.

These new personalities were developed by the following rose growers—Conard-Pyle (C-P), West Grove, Pa.; Peterson & Dering (P-D), Scappoose, Ore.; Brownell Roses (B), Little Compton, R. I.; Jackson & Perkins (J&P), Newark, N.Y.; Melvin E. Wyant (W), Mentor, Ohio; Armstrong nurseries, (A) Ontario, California.

War Dance (C-P) is well-named for it is an exciting Grandiflora that pulses with orange-scarlet blooms, later opening to a full, deep, scarlet red. Flowers are double and high centered averaging



Memoriam

Flameburst

La Fontaine

Black Velvet

4½″ across and several on each stem. A wealth of deep green foliage clothes heavy-structured canes to present a vigorous, attractive shrub.

Something to shout about, Banzai (C-P) Hybrid Tea, has a provocative two-toned color effect and refreshing eye-appeal. Rich, glowing raspberry red at petal tip, the subtle coloring shades to a rich pink at the middle ending in a soft cream base—intriguing in both bud and bloom. Flowers are 3½″ across accented by lustrous foliage; new foliage is red, producing a delightful color contrast. The shrub is low-growing and compact.

LaFontaine (C-P), a rich yellow Floribunda, has pleasing qualities which extend from bud stage to full bloom. Flowers are semi-single forming a lovely cupped flower. The bush is solid,

see page 468

FOR BLOOM IN THE SPRING

CHOOSE BULBS IN SUMMER

PLANT IN FALL

ANTICIPATE IN WINTER

THE DAINTINESS and gaiety of the early spring flowering bulbs is a heart-warming sight following the dreary bleakness of winter. Plan now to prepare your garden for its showing next spring.

The first snowdrop (*Galanthus*) will open its frail looking blossoms weeks before spring has arrived, and the perky winter aconite (*Eranthis hyemalis*) with golden blossoms framed in a green ruff is indeed a welcome sight. The spring spectacle then runs the gamut of scillas, crocuses, chionodoxas, bulbous irises, puschkinias, grape hyacinths, daffodils and tulips.

Spring flowering bulbs are generally more attractive in informal settings and any number can be naturalized for breath-taking displays. Naturalizing means growing them successfully in locations where they fend for themselves and give the impression of being native. Such plants require minimum care with the only weeding being to prevent invasion by aggressive plants. Bulbs also have the advantage of increasing without overrunning anything.

The charming scillas, chionodoxas, and Guinea-hen (*Fritillaria meleagris*) flowers are not quite as showy as later bulbs. But masses planted along a path, in open woodland and at the base of trees or shrubs are indeed beautiful. Combining two or three kinds that compliment one another produces delightful effects. Virginia bluebells go well with the less showy Guinea-hen.

Drifts of wood hyacinths (*Scilla campanulata* or *hispanica*) will clothe a partially shaded slope with small enchanting blue, pink or white bells. Starry chionodoxas, or glory-of-the-snow, stud the ground like scattered jewels. Sheets of blue and white grape hyacinths (*Muscari*) will light up sunny banks and semi-shaded areas. Any of these add new interest to an uncolorful spot.

Small flowers and small plantings need trees, shrubs or rocks to set them off to best advantage. They should not be placed near vivid-flowered shrubs which will overpower them.

The first crocuses of spring delight young and old. Their bright waxy golds, clean whites, rich purples, pretty stripes and assorted shades give gaiety to any garden. Plant them at the base of a tree, grouped at one corner of the lawn or dribbled along the edge of a woods. The blooming season may be prolonged by adding some of the species, such as *C. susianus* and *dalmaticus*. Crocuses may be planted anywhere so long as their foliage is not cut.

Wood hyacinths, dainty species daffodils and species tulips lend interest to little nooks, at the foot of trees or shrubs, in rock gardens and in colonies along fences or walls. *Tulipa dasystemon* and *turkestanica* are two fascinating species to use in natural settings.

Daffodils thrive in places later shaded by tree foliage and are especially suited to naturalizing because of their freedom from disease and long life. For dramatic effects plant them lavishly along a hillside, among scattered trees, in meadowlands, around rocks and along streams and ponds.

Group daffodils in large drifts of one or two kinds rather than mixing several. Create a striking picture by blending

Scilla varieties add color all spring

Green-tipped snowdrops bloom in January—Nature's first hint of a colorful spring

New crocus corms form above the old ones so replant every few years for continuous color

VERONICA M. QUIST
Spring Valley, N.Y.

them with grape hyacinths. Flowering fruit trees make wonderful background accents for splashes of golden daffodils.

Some varieties of trumpet daffodils to naturalize are yellow-trumpeted white Music Hall; pale yellow and white Mrs. Krelage, and the lovely white Beersheba. There are showy large-cupped ones like Scarlet Elegance, yellow with scarlet cup; white Dick Wellband with fiery red-orange cup, and attractive Daisy Schaeffer, white with a large light yellow crown. The bright small-cupped Queen of North, a yellow with frilled cup is also attractive.

Charming *Narcissus triandrus* and *jonquilla* hybrids like Shot Silk, Thalia (both white), and Trivithian (yellow); double cream-yellow Cheerfulness, orange-eyed Geranium, and other cluster types; the poet's narcissus Actaea, a pure white with orange eye, and old Pheasant's Eye (*recurvus*) are all excellent for naturalizing.

Other bulbs, some blooming later, which may be planted for natural effects in moist, partly-shaded areas are—*Iris reticulata*, alliums and camassias.

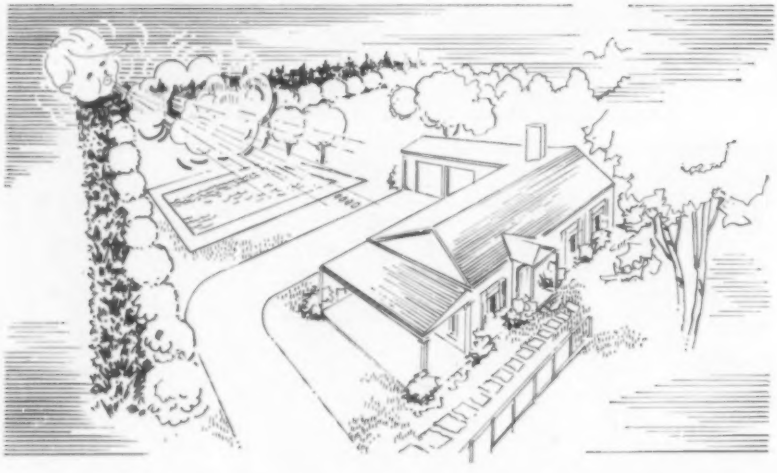
Spring bulbs tolerate quite a bit of shade, flourishing more where there is filtered sunlight. Although naturalized plantings are expected to maintain themselves, applications of fertilizer every two years are beneficial, especially if plants must compete with tree roots. When planting, the bulbs should be placed at the correct depth, in deep fertile, well-drained soil. Foliage should not be removed until it has died.

Plant bulbs irregularly in swathes that avoid any semblance of pattern, or strew them on the ground and set them where they fall. Open places should be left between drifts to accent them. ::

Brilliant blue clumps of grape hyacinth are splendid for naturalizing your garden—set them around the base of a large rock

Hyacinths bordering your daffodil patch make a pleasing sight—a bright color combination to herald spring's arrival

Lower Your Fuel Bills . . .
Add Natural Beauty . . .
PLANT A WINDBREAK



MRS. FRANCIS T. P. PLIMPTON JR.
N. Kingston, R.I.

For maximum protection your windbreak should be planted 35-40′ from the house at right angles to the prevailing winter winds—evergreens interplanted with deciduous shrubs are most effective

WITH warm weather still here and the flurry of spring planting long over, there is time to relax and to enjoy the results of our labors in the garden. Annuals set out in the spring are still blooming merrily, the lawn is cool and green beneath the lush foliage of the trees. Far be it from me to disturb these idyllic musings, but fall is just around the corner and after fall—winter.

How were your fuel bills last winter? And how about the snow? High fuel bills and back-breaking snowdrifts need not be an inevitable part of winter if you plant a windbreak this fall.

Statistics indicate a properly placed windbreak can reduce heat bills considerably (up to 30% in the Midwest) and that a well-positioned row of trees can be a valuable aid in eliminating snow drifts. Certainly it is rewarding to establish a planting that is both pleasing and functional.

A windbreak should be placed at right angles to the prevailing winter winds. The planting should be larger than the space you want to protect, and should be located 35-40′ from the house and driveway to protect them from snowdrifts.

Two to four rows of evergreen trees are considered the most effective windbreak. Because most evergreens grow slowly, a tight row of shrubs should be planted on the windward side to protect the evergreens and give them a chance to get established. Staggered rows of shrubs, evergreens and deciduous trees planted in a gently curving mass will also give quick protection at reasonable cost. The tallest growing material should be planted in the center rows. On small properties use one or two rows of shrubs and small trees. Prune shrubs to keep them thick and bushy.

Windbreak material is always spaced close together. Trees are planted 6-8′ apart and the rows are 8-12′ apart. Shrubs are placed 4′ from one another in rows 6′ from center to center. Choose locally grown stock to insure maximum hardiness.

Take the trouble to do a good job when you plant your windbreak since plants will be exposed to brutal conditions and need a good start. Dig the hole at least 6″ larger than the root ball, and place the topsoil in one pile and the subsoil in another. Stir the soil at the bottom of each hole and incorporate peat moss or humus into it. Evergreens should be set no deeper than they were in the nursery, while deciduous trees may be planted an inch lower. Fill in around the ball with topsoil, tamping occasionally to fill air pockets and insure close contact between the root ball and the topsoil. Use subsoil on the top if it is needed to finish filling the hole. Burlap need not be removed as it will rot in a short time. Water thoroughly after planting.

Tend the windbreak carefully until it is firmly established and supply adequate water during the first two summers. Mulch the whole area heavily. Shrubs will need pruning to make them dense, and dead and diseased branches should be removed from trees. Cut out any deciduous material that was intended to act as a temporary filler when conditions become crowded. It will take three to seven years until the crowns of the trees begin to merge.

A windbreak is a handsome addition to any property, and its beneficial effect will be noticed the first winter. : :

Shrubs Suitable For Windbreaks

Caragana arborescens	Siberian pea tree
Elaeagnus angustifolia	Russian olive
Hamamelis vernalis	vernal witch-hazel
Ligustrum—many species	privet
Lonicera—many species	honeysuckle
Philadelphus coronarius	mock-orange
Viburnum	many species

Trees Suitable For Windbreaks

Acer negundo	box elder
Acer saccharinum	silver maple
Juniperus	many species
Pinus nigra	Austrian pine
P. strobus	white pine
Quercus macrocarpa	bur oak
Q. phellos	willow oak
Thuja—many species	arborvitae

Trade **Bricks** For *Flowers*

gardens give new life to neglected areas

BARBARA E. LEIGHTON
New York, N. Y.

The old garden in the Vicarage backyard has a colorful combination of iris

THIS IS THE TALE of a new garden which, in a manner of speaking, was fostered by an old garden. Both lie within St. Luke's Chapel close in Greenwich Village. A two-year apprenticeship in the old garden behind the chapel Vicarage made possible a measure of success in the new one, initiated in December 1956. The site for the new garden was the adjacent 80 x 80′ corner lot which included four unoccupied houses and an assortment of trash.

Almost any garden in New York lies over a kitchen midden (accumulated refuse from dwellings) and St. Luke's was no exception. Major plantings proceeded slowly until the assorted collection of refuse, builder's bricks and stones were hauled away and topsoil brought in. Areas of hardpan were prevalent and had to be broken up.

Leaving these major obstacles for a later date, the first new plantings were begun that May. Alyssum, annual phlox, portulaca and early asters were set out to add a touch of color to the project. Castor beans and later, sweet corn were planted next to the brick wall of one building where they benefited from radiated heat and also made an excellent backdrop. Later they were replaced with forsythia, mock orange, blue spirea, fig and silk trees. Iris, hosta and lily of the valley untouched for years were divided and replanted.

During the summer I studied gardening in earnest and spent many hours in the public library reading and gathering information. Garden magazines and numerous periodicals supplied a wealth of information which I absorbed through the summer and early fall.

By Labor Day, a border for lilies and roses had been double-dug to three feet and the soil enriched with generous quantities of peat moss and well-rotted manure. To insure adequate drainage, builder's sand was incorporated into the soil. Hybrid Teas, Perpetuals and Shrub roses chosen for their resistance to cold and disease were then planted —luckily none winter-killed. Regal and Madonna lilies did well as did the crocus and daffodils which showed color the following spring. But it took me two seasons to find that plenty of sand and no fertilizer was the proper medium for tulips.

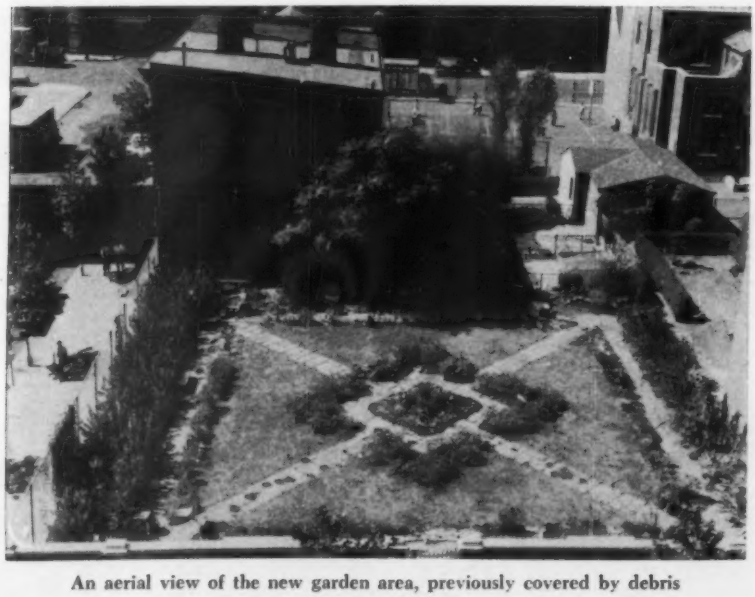
A mild winter aided my first efforts and the following summer the quadrangle of houses was razed to make way for the complete garden. The partial plantings of the previous year looked healthy and were a constant source of encouragement. The remaining debris was removed and with the addition of a four-inch layer of rich topsoil, the garden assumed a new perspective.

To insure the privacy and success of the garden, an eight-foot red brick wall with an iron gate midway was built along one side of the lot. A chain link fence was set up along the other side and rows of buckthorn planted three deep next to the fence to provide a windbreak.

In the center of the garden a diamond-shaped bed was constructed and outlined with flagstones. The center of the bed and the outside perimeter of flagstones were planted with *Deutzia gracilis, Abelia grandiflora* and Fairy roses. Flowering crabs were set on both sides of the iron gate in the wall, and directly across the garden a long-established ailanthus tree was allowed to remain and cast feathery patterns on the brick wall behind. Four wide flagstone walks interlaced with sod strips radiated from the central bed and met the walk that circled the entire area. Grass sown between the walks gave a country air to the city setting.

Every summer the garden is mulched with grass clippings and in the winter,

see page 477



An aerial view of the new garden area, previously covered by debris

Here's HOW TO GROW better...healthier EVERGREENS

Water the balled evergreens with a fine spray as soon as they arrive. Keep the ball of soil and roots relatively moist until planting time. Evergreens are thirsty and should never be allowed to dry out. Insufficient moisture lowers their resistance, making them susceptible to insects and diseases.

BETTY BRINHART
W. Hatfield, Mass.

When moving evergreens, carry them by the balled root section; never by the trunk or branches. Handling the upper part of the shrub roughly breaks the tiny feeder roots from the main roots. This may cause slow growth or be fatal to the shrubs—treat them gently.

For a foundation planting, purchase all shrubs at the same time and as near the same size as possible. This promotes even growth and improves the appearance of the planting. Inspect all shrubs carefully before planting, and return any that are diseased so the rest of your planting will not be contaminated. ►

Before planting, place all shrubs where they will remain. Space them evenly to achieve balance in the final planting. Leave all shrubs where they are and plant just one at a time. Draw a circle around the base to mark the exact spot and show the proper size of the planting hole.

Don't discard the burlap wrapped around the roots. Place the shrub into the prepared hole. Untie the burlap around the trunk and tuck it back around the soil ball. Burlap decays quickly so it won't hamper new root growth.

PHOTOS BY
J. F. MICHAJLUK

After planting, trim only the branches that have grown out of proportion. Do not trim close until summer.

Mid-July is the time to trim shrubs closely to encourage thicker growth. Don't be afraid to cut them back—they will look unsightly at first, but will quickly fill in. A trimming is necessary each July to keep evergreens in bounds and looking their best. ▼

Water the entire area completely when the planting is finished. A feeding may also be given at this time. After the soil dries sufficiently, mulch with peat moss to improve appearance and control weeds.

Dr. A. F. Serbin
Hartford, Conn.

Propagating RHODODENDRON can be fun and

With some 700 species and at least 10,000 hybrids to choose from, it is little wonder the rhododendron has claimed the affection and interest of gardeners. Whenever a breath-taking specimen is seen, the desire to own one like it becomes overwhelming.

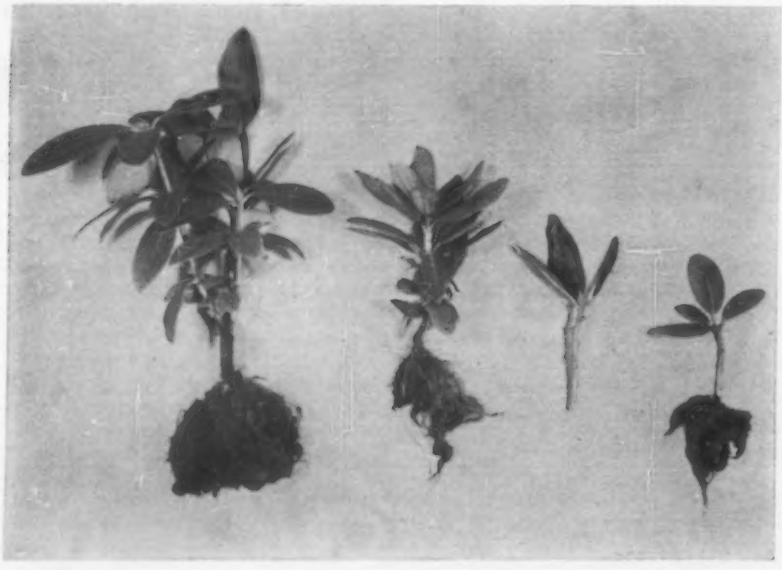
Prior to success with rooted cuttings, rhododendrons were propagated either by grafting or layering. Seedlings do not come true. Rooted cuttings, however, will resemble the parent since they are literally a piece of it brought into independent existence.

Rooting rhododendron cuttings was first perfected by G. G. Nearing of Ramsey, N.J., in the 1920's. To this day, the Nearing propagating frame is still a dependable method.

Though cuttings can be rooted at almost any time of the year, most propagators take cuttings in September and October, selecting termimal shoots produced during the preceding three-month period.

Any terminal shoot 4-6″ in length can be rooted. However, the best plants develop from slender-stemmed cuttings having leaf buds and no flower buds. In larger plants, these shoots are found in the middle or lower portion. If only flower-bud bearing shoots are available, remove the buds after cutting.

Cuttings are best taken in the morning when turgor is highest, and should be placed immediately in a polyethylene bag which is then closed and carefully labeled. Cuttings may be kept sealed in a cool shaded spot for as long as two weeks, though it is not advised. (Cuttings have been shipped to me from Japan in this manner arriving three weeks later and have rooted well.)



Rhododendron cuttings L to R—2-year rooted cutting, 1-year rooted cutting, freshly made cutting, 4-month rooted cutting

Remove all leaves from the cutting except four or five at the top. Shorten the crown leaves by cutting off 50% of their length if the leaf exceeds 4″ in length. Many propagators frown on this last step, believing the plant may be injured and rooting impaired. However, experiments show a cutting thus prepared roots just as well and goes on to vigorous growth. Moreover, this practice permits more plants to occupy the same space and allows more light to reach all leaves.

The cuttings are now ready to dip in a solution of fungicide and DDT to kill any larvae or fungi which are sometimes found on the leaf under surface. Then bruise the stem 1-1½″ at the

Rooted cuttings of broad-leafed evergreens in individual fiber pots placed outside to harden off for wintering over in cold frame

...VS

...ewarding!

Other broad-leafed evergreens such as *Ilex cornuta* may be successfully rooted following procedures recommended for rhododendrons —plastic stretched over wire frame converts flat into a humidified compartment to stimulate root growth

cut end. Two such bruises on opposite sides give best results. Use a sharp knife, scrape gently and avoid deep cuts. Removing the surface layer of cells leaves a raw, wet surface which will expedite water and hormone absorption. This done, dip the cutting in a root inducing hormone and insert it in the bed.

Controlled experiments leave little doubt as to the value of hormones in rooting cuttings. Hormones are now available in liquid form or suspended in talc in weak dilutions either singly or in groups. The freshly bruised cutting is dipped in either medium, the excess shaken off and the cutting inserted into the bed, burying half the stem. Then thoroughly water and cover it with a polyethylene tent.

The rooting medium used varies. Sand, sphagnum moss, styrofoam, vermiculite, perlite and peat moss either alone or in various combinations are used. Use a mixture of German peat moss (because of its coarseness and low pH) and coarse industrial perlite. The peat moss is thoroughly broken up by hand, mixed dry with the perlite and packed firmly in a large flat, 4″ deep.

The width and length of the flat is elective. There must be ½″ spaces between the bottom slats to assure drainage. A word of caution regarding wetting the medium. Peat is stubbornly water repellent. It is necessary to water the flat repeatedly for several days in advance of inserting the cuttings. The last watering is done with a watering can containing a heaping tablespoon of fungicide and an equal amount of wettable 10% DDT dust to every two gallons of water. This will sterilize the bed. The cuttings are then inserted, allowing 2½″ between each cutting and each row. A final watering will firm them into the peat-perlite mixture.

Cover the flat with the thinnest polyethylene available, leaving at least a 10″ space for air above the leaves. Polyethylene will permit gases such as oxygen and nitrogen to pass through, but will prevent moisture loss.

We now have a "sweat box" with almost 100% humidity. This is necessary since the cutting is a live organism that has been severed from the parent root system. Water transpiration is constantly occurring through the tiny stomas of the leaves, but high humidity in the polyethylene tent prevents loss of plant fluids. Indeed, water may be absorbed by the foliage from the moisture-laden air pocket in the event the cutting is deficient in water. Within a few hours beads of water will accumulate on the inside of the tent and will be seen for weeks to come.

It is essential that these droplets be present at all times, for watering will not be necessary as long as moisture appears on the film.

The propagating unit should be kept between 68 and 72° F. Give it as much light as possible but no direct sunlight. Polyethylene traps infrared heat waves from sunlight, and the air temperature will rise dangerously and burn the foliage should direct sun strike the tent for even a short period.

In eight to ten weeks roots should be well developed. Dwarf hybrids root frequently in six weeks. When well rooted, the cuttings will resist gentle tugging.

Each plant, with its roots imbedded in a ball of peat, is lifted by gently tearing it out of the bed or by cutting out a square surrounding the stem, and transplanting to another flat containing equal parts of sand, peat moss and leaf mold. The plastic tent is no longer necessary. Heat should be continued for two to three more weeks. Now, the plants may be exposed to sunshine if cheesecloth netting is used to provide partial shade.

Discontinue the heat at the end of three weeks and place the flat in a cold frame to harden the plants and keep them dormant until spring. Transplant to a bed rich with peat and leaf mold or old manure when frost is out of the ground. A light feeding of acid azalea fertilizer in early summer will yield a lush second growth. : :

Banks of *Rhododendron maximum* deployed along this natural path in Ogontz, Pa., add color the year 'round—these shrubs are approximately 15 years old

GREENHOUSE GARDENING

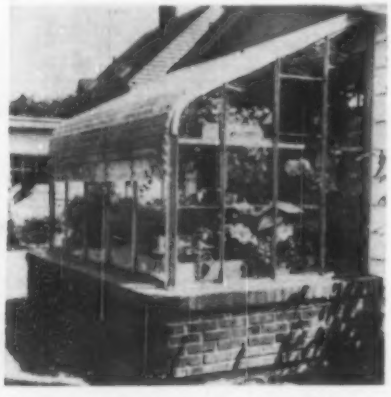
. . . interesting all-year hobby

Mrs. Ray W. Lauchis
Brecksville, Ohio

With summer waning and the long winter months looming ahead, you're no doubt anxious to start the seed collected from catalogs over the summer. For fortunate gardeners, like myself, with a greenhouse, this presents no problem, other than gathering enough soil to last the winter. For we can plant our seed anytime.

Greenhouses are inexpensive as hobbies go. Any do-it-yourself gardener can easily erect any of the modern types now available. Before long they can pay for themselves by saving you money on many plants, any of which may be used as gifts.

I became interested in gardening when we built our first house in Hawaii. It's difficult to live in such a tropical paradise without becoming an enthusiastic gardener. After moving back to Ohio I shuddered at the effects of the first frost. Then I acquired the greenhouse where I now garden all winter and laugh at the snow piled around my snug glasshouse.



Three-sided aluminum frame greenhouse—wood or fiberglass slats provide shade

It doesn't take an expert to operate a home greenhouse. I'm not a botanist, taxonomist, agronomist, horticulturist or authority on anything; I'm just a dirt gardener thoroughly enjoying herself. Two years before I had the greenhouse I couldn't pronounce Sansevieria, let alone grow one. My husband bought me 25 various little plants and in record time, without any effort at all, I managed to kill every one of them. This appalled me so I began reading and experimenting and had better luck with the next lot. But, it wasn't until we added the greenhouse that I really got the feel of growing plants in pots.

One of my greatest joys is starting annuals, perennials and vegetables from seed. These I start January through March and by the end of May they are bushy and branched from pinching, and starting to bloom. Even delphiniums bloom the first summer because of the early start in the greenhouse. With a greenhouse you're the weatherman and you don't have to wait for Mother Nature who is sometimes tardy with rain and warmth.

Tuberous begonias, caladiums, cannas, dahlias and many bulbs get a healthy start under the benches where some sun reaches them. Mine are started in March and the begonias are already budded when set out about June 1st. I remember when I used to start them in the basement. They looked pale and spindly when I put them outside to fend for themselves.

Everything does better in the greenhouse where you can provide optimum growing conditions. Cuttings don't seem to stop growing and some even continue blooming while rooting. I vary the rooting medium, depending on the cutting, but the big factor is the high humidity which stimulates root formation.

One important facet of greenhouse gardening is the never-ending supply of flowers and foliage for flower arranging. If you are interested in this art, you'll understand what it means to walk into the greenhouse, visualize an arrangement and then cut accordingly.

There are many thrills in store for you if you like to experiment with new plants and ideas. For instance, never having seen cotton in bloom I started some from seed. When the plants bloomed I flew around like a mother bee pollinating them and they developed cotton bolls (unripe cotton pods). Ah yes, I did hear some quips about my "cotton-picking" greenhouse.

Aspidistra was another plant I wanted after hearing Beatrice Lillie sing "I've Got the Biggest Aspidistra on the Block." Now I'm growing atom-blasted zinnias, one of which looks promising and unusual.

I find some of the articles in books and magazines about greenhouses slightly terrifying. You're warned about insects, disease, soil sterilization, sanitation, fumigation, rigid schedules and so many dangers that you'd think there would be little joy left. I don't stick too close to the book yet manage with few problems. I never introduce any plant without checking it thoroughly and if there's any doubt, it is isolated. Everything is kept as clean as possible but I'm not usually prepared for any white glove inspection.

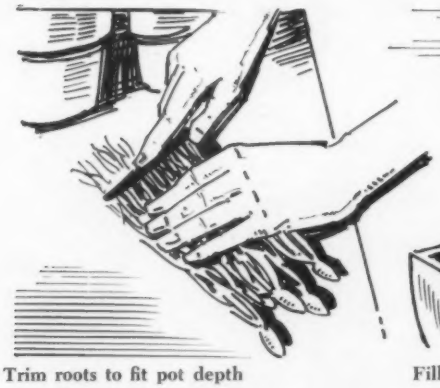
As for a schedule, my loose sense of timing could hardly be called a schedule. Sometime in August I take geranium cuttings and start seeds for winter bloom; in October I pot bulbs for forcing and January through March I start my annuals. The rest of the year I putter around and have fun. An occasional spraying takes care of insects, a minor problem particularly in winter. With the automatic controls now available such problems as heat, humidity and ventilation are easily solved. : :

Diversified plant material in various stages of growth may be grown in the same greenhouse

Imagine . . . LILY of the VALLEY for HOLIDAY GIVING

THERE IS something about the sweet-scented lily of the valley (*Convallaria majalis*) that literally breathes of spring. Put a pot of them in full bloom on the table at Christmas time and the snow disappears and the cold winds seem to fade to a gentle breeze. You can almost feel the rich, crumbling soil between your fingers and hear robins singing.

It would seem any flower that can do all this during the holiday months must be difficult to force. But nothing could be simpler.



Trim roots to fit pot depth

In September or October dig up an overcrowded lily of the valley bed and divide the clumps into single roots or crowns called "pips." Keep out enough pips for propagating, then replant the rest three to four inches apart with the tops one inch below ground level. Set them in deeply dug soil, enriched with compost or decayed manure.

Place the roots kept out for forcing in cold storage and keep dormant at 28°. Your home freezer or refrigerator will do nicely for this storage providing the roots are wrapped in paper or polyethylene to prevent drying out. Do a little experimenting first to determine what spot in your refrigerator will keep them at 28°. There the pips will lay, their flowers asleep, until you are ready to force them.

Lacking plants of your own, most nurseries or mail order houses can supply the pips in time for forcing at reasonable cost.

GENE UTZ
Center Moriches, N.Y.

You might like the old-fashioned lily of the valley or the new double white which has tiny bells inside of the larger bells with two or more miniature bells at the side. Also consider *C. rosea,* a sport from the Old World, which has a faint tinge of pink on its normally white, pendent blossoms. This color touch is permanent and will reappear year after year. There is also *variegata* with its variegated leaves or Fortin's Giant which has much larger flowers.

Three to four weeks before Christmas, take the pips out of cold storage. Trim off the root ends and set them in six-inch pots, one inch apart. Leave the crown tip level with the top of the pot and fill with soil to within one inch of the rim. Equal parts of sandy soil and peat moss or equal parts of fibrous loam and leaf mold are best. The latter closely matches Convallaria's native soil. Shake the soil among the roots and firm.

Fill with soil to 1" below rim

Place the pots where you can maintain a temperature of 65-75° during the day. Cover the pots with heavy paper or with another pot to keep the pips dark from 10-14 days. Peek in occasionally to see if growth has started. When it has, gradually admit light to the plants, finally removing the covering when active growth begins—then water freely.

Bottom heat applied at this time will cause the eight to ten-inch flower stalks to develop well in advance of the leaves.

Three to four weeks from the time the pips are potted, the first dainty flowers will spill their fragrance throughout the room. The pert white bells will compliment the bright reds of your poinsettia and Christmas cactus.

When the plants have finished blooming you may replant them outside in April, although September or October are best. They are one of the best ground covers for damp, shady places where other plants refuse to grow. They thrive in deep rich soil and crowd out weeds as they grow and spread. Convallaria's prolific growth is geared to its root system which spreads indefinitely, shooting up new flower stalks and buds. The roots are so persistent they are difficult to kill, even by neglect.

Plants are always welcome gifts

Leave the beds undisturbed for four to five years. The plants will tell you when division is necessary—fewer flowers are the signal. Then lift and separate the clumps into single crowns and replant.

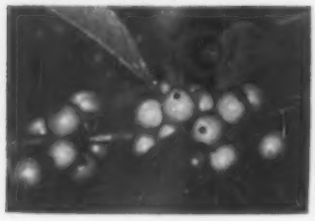
Beds 30-40 years old need a complete fertilizer each spring and a top dressing of compost, leaf mold or well rotted manure each fall.

While the largest and most fragrant species originated in temperate Europe, many are native to Asia and Eastern North America. The Appalachian Mountains from Pennsylvania to South Carolina is their natural range. Plants can be naturalized from these regions into your garden by duplicating their environment as close as possible. Dig deep enough to take all the roots, including some of the surrounding soil to prevent them from getting homesick at first.

However, before you dig wild lily of the valley, consult your conservation laws. Your state agriculture department can supply you with a copy. If you don't know the law, don't dig. ::

I. glabra, inkberry

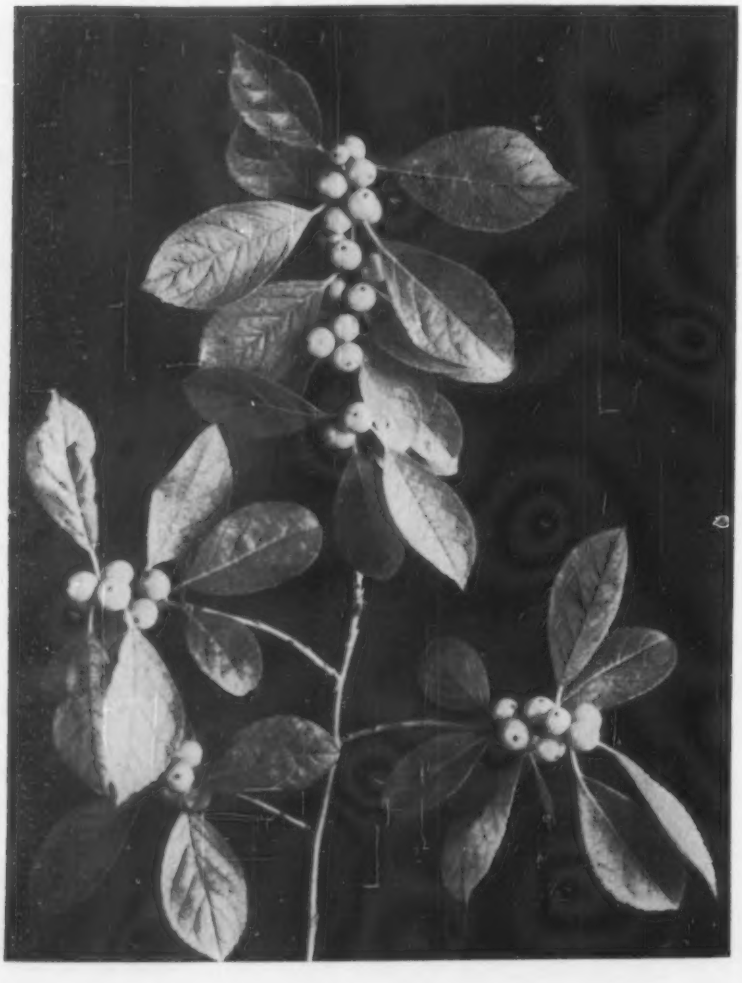
Possum haw, *I. decidua*



Black alder or winterberry, *I. verticillata*

HOLLIES IN LANDSCAPING

PHOTOS BY GILCHRIST & MORRIS ARBORETUM



TO MANY people, holly conveys the impression of a plant with thick, spiny evergreen leaves and bright red berries. Our well-known American holly, *Ilex opaca* and the almost equally familiar English holly, *aquifolium,* both fit this description, as do the Chinese species, *cornuta* and *pernyi.*

To some, however, it comes as a shock to learn our native inkberry, *glabra,* is also a holly although its leaves are without spines and the fruits are blackish rather than red. The same is true of the Japanese holly, *crenata,* and several other species. All these hollies have leathery leaves which persist throughout the year.

There exists, however, within the genus Ilex a group of species which is less holly-like than inkberry. Their leaves are membranaceous and deciduous, rather than coriaceous and persistent. Nevertheless, by the structure of their flowers and fruits they, too, are entitled to be considered hollies, although their common names frequently conceal this fact.

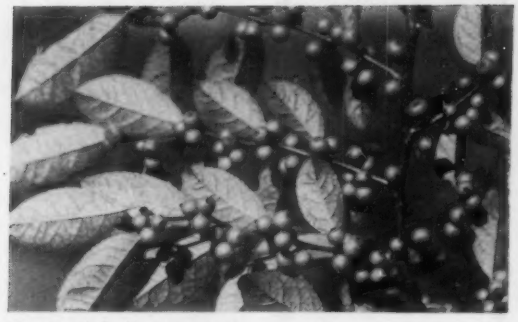
Over the years the evergreen hollies have claimed the major share of attention. However, the deciduous forms have high ornamental value and are worthy of cultivation.

Like their evergreen congeners, the deciduous species of Ilex possess imperfect or unisexual flowers and the male and female blossoms are dioecious, or borne on separate plants. There is apparently no way of knowing whether an

***I. laevigata*, smooth winterberry**

ountain holly, *I. montana*

I. cornuta, National

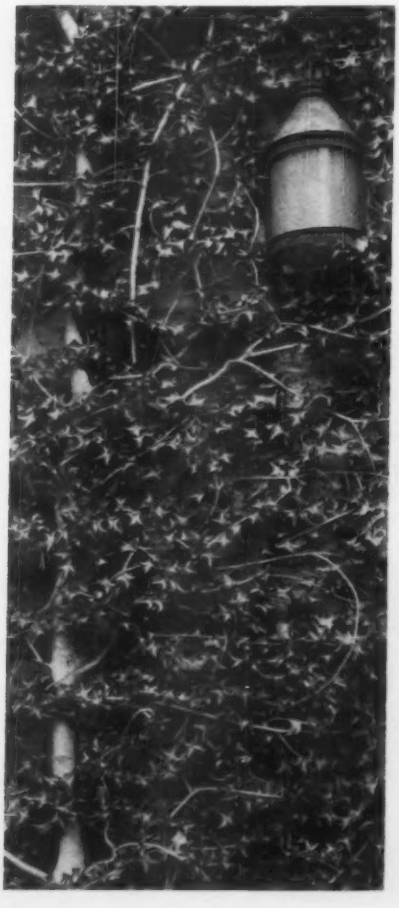


Finetooth holly, *I. serrata*

. . . there are many kinds

JOHN M. FOGG JR.
Philadelphia, Pa.

Espaliered Chinese longhorn holly (*I. cornuta*) softens the perspective of a cold, brittle, stone wall



individual holly plant is male or female until it flowers. Fortunately, however, the female flowers are receptive to pollen from the same or another species, and the female plants nearly always bear fruit.

The so-called holly berries are really berry-like drupes containing several bony nutlets. Those of the deciduous species are quite showy, varying in color from red or scarlet to orange-yellow and varying in size from ¼-½" in diameter.

Although most deciduous hollies do best in moist, somewhat acid soils, they will flourish in normal well-drained situations, especially if a mulch of oak leaves or pine needles is occasionally added.

The following species do well from New England south to Florida and the Gulf States. They also prosper along most of the Pacific Coast where shade and moisture are available.

☐ Black alder or winterberry (*verticillata*) grows to about 10′, occurring in damp woods with slightly acid soils from the St. Lawrence Valley west to Minnesota and south to Florida and Louisiana. The common name, black alder, applies because its leaves often turn blackish after the first frost. Scarlet drupes develop while the leaves are still green and usually remain long after the latter have fallen giving the plant its second name, winterberry.

☐ Smooth winterberry (*laevigata*) is closely related to *verticillata* but is more restricted to acid, boggy situations. Its male flowers are borne on long slender stalks and drupes are orange or scarlet, rather then red.

☐ *I. geniculata,* a native of Japan, was first introduced into this country in 1894 by Dr. Charles S. Sargent of the Arnold Arboretum. This plant bears a close resemblance to the two preceding species, but differs in its narrower, more pointed leaves and longer, slender fruit stalks. Drupes are brilliant red.

☐ Finetooth holly (*serrata*) is native to Japan. This species develops into a tall, well-shaped shrub 6-8′ tall. Leaves are dull green above, sharply serrulate on the margins and densely pubescent beneath. Few hollies are more fully fruited and although the individual drupes are small, their rich red color makes finetooth one of our finest ornamental shrubs.

☐ *I. amelanchier* (also known as *dubia*) is a shrub or small tree native from Virginia to Georgia and Louisiana. It has blunt, oblong, leathery leaves and large scarlet drupes borne on long, thread-like stalks.

☐ Georgia holly (*longipes*)—a little known species which ranges from Virginia and Tennessee to Florida and Louisiana—is tall and thin with elliptic to lanceolate leaves. Both male and female flowers develop in long stalks and the large globose fruits are bright red.

☐ Possum haw (*decidua*) in many ways is the most spectacular of all the deciduous hollies. It is a tall shrub (up to 30′) found in the low woods and bottom lands from Maryland to Florida and Texas. The globose drupes of luminous scarlet are borne in great profusion and, when not eaten by voracious birds, persist throughout the winter.

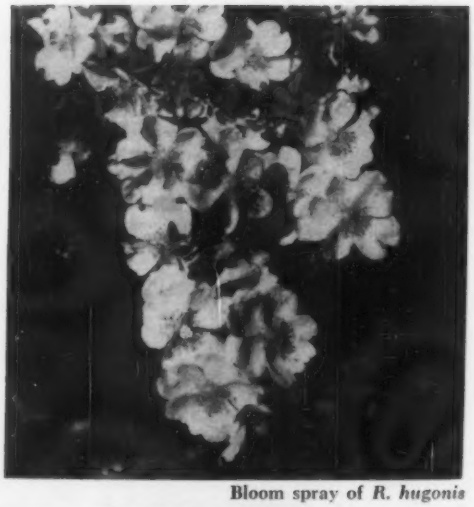
☐ Mountain holly (*montana*) formerly called *monticola,* is one of the most tree-like deciduous hollies and may grow 35-40′ high. It is found in rich, wooded upland slopes from New York to Georgia and Alabama. The large membranaceous leaves are glossy above and smooth or pubescent beneath. Drupes, which are orange-red or scarlet, make a fine show in autumn against a background of lustrous foliage. : :

Crested Moss rose — WILL TILLOTSON

Wild yellow rose

Old Roses

MARK TAYLOR
Salem, Oregon



Rosa hugonis bush

Bloom spray of *R. hugonis*

MODERN roses have claimed the popularity spotlight in polls throughout the country because of their exquisite form and wide range of coloring. But some of the older roses still have a certain inherent charm that keeps them at the head of the rose parade and it is doubtful if their true beauty will ever wane.

While many of the old roses are not as glamorous as the modern hybrids, they do have certain favorable qualities which we cannot resist because these roses have existed for decades. Then, too, they have an inimitable rose fragrance sometimes missing from many of the hybrids.

Actually, the old roses have an important place in our nations's history, as well as in our gardens and hearts.

There are several general classes of these old roses with which every rose lover should be familiar: *species* (wild), *gallica* (French), *damascena* (Damask), *alba* (white rose of York), *centifolia* (cabbage), *centifolia muscosa* (moss), *borboniana* (Bourbon, hybrids of China) and the Hybrid Perpetual class.

Rose Max Graf

Mc FARLAND

still have charm

Of the species roses, we find the most appealing and charming shrubs are—*hugonis* (Father Hugo's rose) and its hybrid *cantabrigiensis*, and *eglanteria* (sweetbrier) and *rugosa*. *Hugonis* seems to do best with practically no attention and *rugosa* repeats its blooms throughout the season and is tolerant of sea air and pruning. One of its hybrids, Max Graf, a trailing, single pink makes an excellent ground cover.

The gallicas produce generous quantities of long-stemmed, well-spaced blooms on compact bushes. They are much showier than the centifolias since their blooms are held erect.

The damasks probably are hybrids of French *musk* and *alba*. They have soft, gray-green foliage but rather weak flower stems.

Most of the albas are strong, erect bushes that submit well to pruning. The flowers are usually quite fragrant. In fact, *alba semiplena* is grown for perfume in Persia (modern Iran).

The centifolias, or cabbage roses, generally have long protective sepals and closely curved petals. The flowers are globular, double and quite fragrant.

Moss roses are found in many forms. While some do not have the refinement of the other old roses, many are just as beautiful and have a delightful fragrance which far outshines many modern roses. There is a period air about the old moss roses, and well there might be, for they were popular before 1750.

Father Hugo's rose is, perhaps, the most important shrub rose of modern times. It comes from Western China, is quite hardy and develops into a graceful 7′ shrub in the spring with yellow, single flowers on long, slender stems.

Eglanteria (sweetbrier) is a common rose of Europe, often found in hedgerows with *canina*. It has a sweet-scented foliage, and can be grown as a hedge and clipped in early spring. In England, it is the only native rose sufficiently popular to be considered a common garden plant, yet it is rarely found in home gardens in this country.

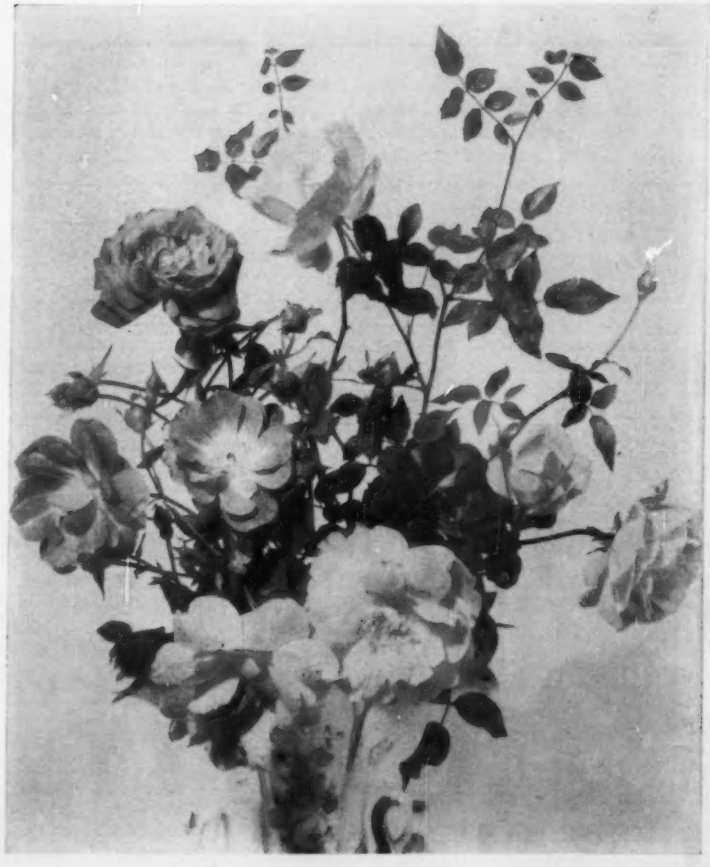
The Austrian brier (*foetida*) has been popular in America since colonial times. Its colors are strong, but the fragrance is rather unpleasant. From *foetida* comes the variety Harison's Yellow, introduced about 1830, which later escaped cultivation during early Westward migrations and naturalized in the far West, leading to an erroneous belief it was a native species.

Borboniana is a famous hybrid cross of Provence with the China rose. The origin of many Hybrid Perpetual roses, it is an upright shrub with prickly stems. It blooms freely and persistently.

The Hybrid Perpetuals are taller and bolder in effect than other roses. They have recurrent blooms and are relatively hardy.

To enjoy these old roses to the fullest, group them separately from their modern counterparts for the modern roses may overshadow them in size and brilliance of bloom.

Despite all the scientific knowledge of hybridizing, one quality found in the old roses that has been lost in the development of many modern roses is the exquisite natural rose fragrance. It is this inherent quality that so often distinguishes the two. Realizing this, modern hybridizers are directing much of their energy toward restoring the classic rose fragrance to modern roses. In the future the finest qualities of the old roses may be merged with the splendid qualities of modern hybrids. ::



Both the petals and foliage of the China and Bengal roses have a delicate grace ►

More NEW ROSES for fall planting

from page 453

Rose Bowl

Banzai

Peaceport

War Dance

White Prince

Lillie Marlene

Royal Lavender

Pigmy Lavender

compact and produces dark green. leathery leaves which form a sharp contrast with the brilliant yellow blossoms.

A Hybrid Tea of noble bearing in both stance and purity of bloom, White Prince (P&D) has a tall upright habit, making it excellent as a backdrop. Blooms are white, quite large and lightly fragrant. They have a firm high-centered character and each contains more than 50 petals. Buds, too, are long and slender. Displayed against a lightly-glossed, heavy-textured foliage, they make an impressive background.

Winner of a Gold Certificate Award at the Portland International Test Garden last March, Memoriam (P&D) is a classic example of a Hybrid Tea exhibition rose. Buds are large and long, pointed with white to pastel pink coloring. Luminous pink to white pastel double blooms range 5-6″ wide and are borne singly on 2′ stems. Blooms sometimes come in clusters of 3 or 4. The shrub grows 3-4′ with deep green, semi-glossy foliage. Used in arrangements or bouquets its crisp beauty will highlight any display.

Produced as a twin to the popular Nearly Wild (B) Floribunda introduced in 1959-60 is the equally exciting and distinctive Flameburst (B) Floribunda. Here is presented the same vigorous growth, glossy green foliage and massive profusion of blooms which characterizes Nearly Wild. Flameburst's blossoms, however, are brilliant red with bright yellow centers. A striking companion piece to accent your rose garden.

The stirring notes of Lillie Marlene, a famous marching song of World War II, come back to life with Jackson & Perkin's introduction of its red Floribunda, Lily Marlene. The new rose bears dark, cherry-red flowers that are 4″ across. Blossoms are borne in heavy clusters that furnish masses of rich color wherever planted. Wavy petal edges give each bloom a piquant delicacy in keeping with its namesake. Plants are bushy and have an attractive, semi-glossy foliage.

The development of the Avon (J&P) Hybrid Tea rose brings to modern roses the fragrant, lingering rose perfume long associated with the old roses. It was first introduced at last spring's International Flower Show in New York City where it commemorated the 75th anniversary of the Avon Cosmetics Co. Flowers are tall centered with a sustaining, bright red color. Buds are large and gracefully tapering, later opening to flowers which measure 4¼-5½″ across. Bright green foliage compliments the blossoms.

see page 484

Through repetition of the colors in the Vermeer painting, the pair of arrangements are rhythmically accentuated. Rue, rose, geranium, honeysuckle and viburnum seed heads in a brass urn on black marble pleasingly repeat the colors.

ARRANGEMENT BY MRS. MYRA J. BROOKS

Choice of the blue ribbon winners, this John Taylor Arms Award winner combines Happiness rose and magnolia leaves in a milk glass container

ARRANGEMENT BY MRS. ROBERT MOORE

Sunflowers —a diversified family

THE GENUS HELIANTHUS has several species which have been hybridized and selected until today there is a wide assortment of both perennial and annual sunflowers that add charm and interest to a garden.

H. annus is the parent of the gigantic sunflowers most often called Russian Giants. A single flower head is produced on an 8-10′ sturdy stem. The flower head is sometimes 14″ across and has innumerable large seeds which in this country are used in bird seed mixtures. In Europe and Asia the oil is extracted from the seeds and used in a variety of ways.

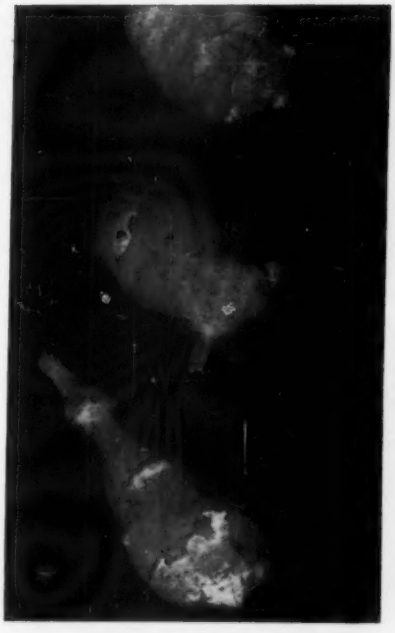
H. decapetalus is more desirable for general planting in the garden. Growing 4-5′ tall, varieties are available fully double and single. One of the most popular doubles is Soleil d'Or. Loddon Gold is another double yellow frequently used. Capenach Star is a single golden yellow.

The annual species, *debilis,* is the parent of the garden strains known as miniature sunflowers. Sun Gold and Gaillardia Flowered, the red sunflower, are both extremely popular. Others are Stella, a golden yellow, Primrose Stella, Dazzler, a chestnut red tipped with orange, Orion, a deep yellow, and Excelsior which has red and crimson markings. The Jerusalem artichoke, or Girasole, makes a fine display of yellow in an abandoned field or a railroad embankment, but unless you are prepared to keep it in bounds, growing it in your garden is not advised. The tuberous roots are regarded by many as a vegetable. Some use them raw in salad, others cook them as you would potatoes. These uses are fine, but this species spreads so rapidly that it is necessary to rogue out many of them every year.

Sunflowers do best in a light, rich, deep soil that is adequately drained. They are heavy feeders as is evidenced by the stem size of the giant types.

Annual Dazzler Hybrids

The name helianthus is derived from *helios,* the sun, and *anthos,* a flower. Annuals have either reddish, pale yellow or deep yellow flowers and are easily propagated by seed. The Russian Giant sunflower shown in color, left, is the largest annual of all. Perennial sunflowers are easily propagated by lifting and dividing in the fall.



THE JERUSALEM ARTICHOKE, (*Helianthus tuberosa*) shown above, now called American artichoke, is not an artichoke and has no connection with Jerusalem although this combination of names will probably remain in use.

Artichokes, members of the sunflower family, are grown to a much greater extent than most people realize. Thousands of pounds of seed tubers are grown annually, and during World War II the artichoke was grown as a means of supplying food in quantity at low cost.

When artichoke tubers shrivel up because of lack of moisture, they can be reconditioned by soaking them in cold water for two hours. If they are to be kept over a period of time, it is wise to soak them for two hours every day. Moreover, artichokes should be soaked in salt and water for 30 minutes after they have been cleaned to improve their taste. More than 100 recipes for the use of American artichokes have been published.

In addition to its value as a food, it is distinctly ornamental and when planted thickly makes a dense hedge or screen.

Plants require the entire season to make their tubers which should not be dug until the tops start to die. ::

MARGUERITE N. DAVIS
Portland, Oregon

PACIFIC COAST IRIS

PACIFIC COAST iris enhance the beauty of any rockery or border where they are planted. These lovely species, native only to a strip of our Western coast from lower Washington to California, are becoming increasingly popular with gardeners interested in small iris.

Not to be confused with miniature or dwarf types, these members of the Apogon (beardless) family are short stemmed with small orchid-like flowers and attractive foliage. They are not difficult to maintain if proper care is used when planting rhizomes or seed.

In recent years much has been done to bring the best of these iris to ultimate perfection through hand pollenization. To Dr. Lee W. Lenz of the Rancho Santa Ana Botanic Garden, Dr. Quentin D. Clarkson and Dr. Matthew Riddle must go credit for the fine Pacific Coast irises now available to gardeners.

When the American Iris Society held its 1960 convention in Portland, visitors were impressed with the extensive plantings in Dr. Riddle's iris gardens. His careful selection and hybridizing of plants over the past 20 years is noteworthy.

He collects his plants in the spring since growth begins in March and continues through May. The small, slender rhizome roots can store only a small amount of food, and must be lifted during spring growth or after September when growth is again under way. If you dig your own (in the areas where this is not restricted), shake the soil off carefully to rid the rhizomes of weed seed and debris. Wrap them in wet peat moss, then in a newspaper and wrap tightly with a rubber band. If you buy, patronize a reliable nurseryman who digs when the time is ripe. Plant the rhizomes approximately ¼" below the surface.

If planting seed, sow seed which germinates rapidly. In time the plants will sow their own seed which may be gathered for future use. For best results soil should be acid, otherwise an iron compound must be added.

Seed should be placed ¼" deep. Germination period varies; sometimes it is during the first year or it may take five years. Bloom may be expected 18 months from the time plants appear.

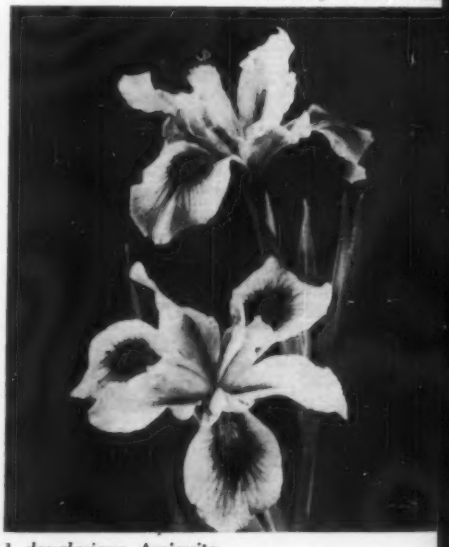
Winter freezing enhances germination which, as a rule, begins the following April. Young plants should not be lifted until the following spring, when root growth begins again. This is important, and the reason why some collectors, both amateur and commercial, lose their plants.

If you wish to save seed, pick the capsule after it begins to open. Seed mold may be avoided by spreading the seed out in a cool, dry place. Drying takes two or three days, after which the seeds may be shaken out. They may be planted outside in September.

Young plants need protection from birds and small animals until they are well established. Seeds retain their viability for several years, so it is better to wait for the proper time, and to have the proper location before planting.

Bees may be foiled by removing their

PHOTOS BY J. E. DOWNWARD



I. douglasiana, Amiquita

Dark yellow flowers with purple veining on the falls identify *I. innominata*

Reaching 20", *douglasiana* has lilac-purple to white or cream-white flowers

landing fields—the outer, broad, and spreading divisions of the perianth (falls).

Dr. Riddle's favorite hybridizing type is *innominata,* because of its usefulness in developing better strains. In its natural state it hybridizes readily with such other species as *douglasiana, tenax, chrysophylla* and *gormani.* Many plants collected around the periphery of *innominata* are natural hybrids and exhibit different colors. Most of the Pacific Coast irises growing in his garden show distinct characteristics of this species.

Following are Dr. Lenz' classification of the different species, previous to which identfication was difficult—

■ *I. tenuis*—resembles the Oriental iris, flowers are white, marked with yellow and purple, miniature in size, as are the leaves, it will not hybridize; *tenax*—flowers light rosy-pink to deep purple, blooms when there are not many purple flowers, prefers dry sunny locations similar to native uplands; *chrysophylla*—prefers dry location, flowers tan and yellow; *bracteata*—prefers dry location, flowers yellow; *gormani*—shades of yellow, likes moisture and some sun; *purdyi*—prefers cool climate, flowers are pale cream; *innominata*—shades of yellow basically, but natural hybridizing produces browns, reds and pinks; *douglasiana*—flowers lavender into blue, likes moisture but not too much shade; *thompsoni* is not a species but one of the color variations with shades of lavender into blue with an occasional rare white.

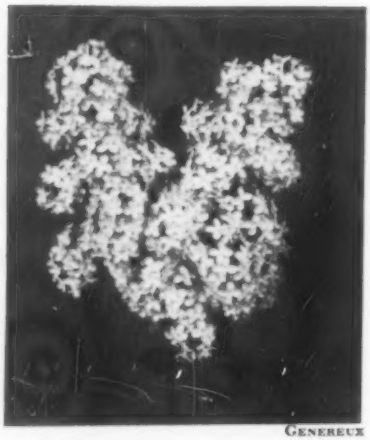
Pacific Coast irises harbor no pests, nor do they carry disease. If your winters are not too rigorous and your summers not too moist (during the dormant season) you will be repaid for the comparatively easy culture of these colorful gardens gems. : :

Close-up showing the delicately inscribed veining on the falls of Pacific Splendour (*innominata*)

Pacific Splendour provides a lacy frill behind this low stone wall

Observations about LILACS

SVEN NILSON, Avon, Connecticut



GENEREUX

Panicles of the single-flowered, pink Lucie Baltet come grouped in small, loose clusters which have a pleasing fragrance

GEORGE TALOUMIS

First introduced in 1888, Lucie Baltet still remains one of the most popular pink lilacs—it is a French hybrid (so-called because many lilacs are products of French hybridizers) of the common lilac, *S. vulgaris*

THERE is an old and often repeated saying that lilacs should be chosen in the spring but planted in the fall. Like most sayings of this kind, it is basically sound but needs qualification.

Lilacs, like any other plant, behave differently in different environments. Some are dependable bloomers, others are rapid growers, many are slow blooming even though the bush itself grows fast.

Judging from my observation of over 50 varieties, some are more susceptible to scale attack than others. This is a matter of considerable importance if you are concerned with the amount of spraying required to keep a bush healthy and flourishing. Some varieties even when fully grown may have a fragrance which varies from year to year. The variety Night is a conspicuous example of this in our garden.

If you are thinking of adding lilacs to your garden, you should consider several things. One important aspect is floriferousness. Profuse bloom varies not only with soil and weather but also with individual specimens. The general health of the shrub is important too. Certain varieties also tend to be biennial bloomers. The rating of these characteristics will vary from person to person but are important to the buyer.

Lilacs may remain scentless, or nearly so for one or several years before acquiring their characteristic perfume. On the other hand, some are fragrant from the first and retain a lasting fragrance.

It should be noted that lilacs differ in fragrance.

Among my own lilacs, one has an intense, sweet fragrance, another an almost equally intense but only moderately sweet fragrance, and a third an intense but, to me at least, a somewhat offensive odor. Most visitors to our gardens are attracted by the fragrance of the hairy lilac (*Syringa pubescens*) but some find it almost repellent.

Habit and rapidity of growth are other factors which should be considered by prospective purchasers. Most white lilacs tend to grow quite tall unless held in check by pruning. Most of the Skinner hybrids from Canada demand plenty of room to be at their best. Some, like Decaisne, though not slow growers in the proper sense of the word, never grow beyond 6-8′. There is much to be said for keeping lilacs under 10′ for ease in pruning and spraying, if they are not employed to screen out a road or some unattractive view.

The health of a bush is also a major consideration. Contrary to the belief of many gardeners, species and varieties differ in susceptibility to mildew and to scale insects. Minnehaha and De Miribel are frequently attacked by mildew while Ludwig Spaeth and Montaigne often have scale.

Powdery mildew can be prevented from attacking lilacs but once the mycelia have invaded the leaf it is impossible to destroy the fungus. In the past sulfur has been the best preventative but it should not be used if the temperature is 80° or higher. Karathane, a phenyl crotonate, is most often used now. Scale, especially oyster shell, is most important on lilacs, but easily eradicated by a delayed dormant miscible oil spray. Use a highly refined oil and delay the application until the buds begin to swell in the spring.

Visit parks and nurseries to see specimens in actual environmental conditions. This is an invaluable aid when making a final decision.

A study of *Lilacs for America* published in 1953 by the American Association of Botanical Gardens and Arboretums is in most libraries. ::

BLACKBERRY LILY

PROF. CLARK L. THAYER
Amherst, Massachusetts

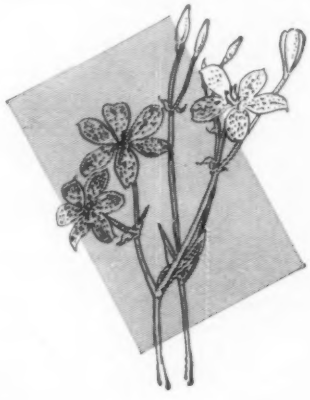
THIS INTERESTING plant of the iris family (*Iridaceae*) has been known variously as *Belamcanda punctata, Gemmingia chinensis, Pardanthus chinensis* and *sinensis*. Belamcanda is an East Indian name, possibly meaning leopard flower, which definitely is the significance of Pardanthus, referring to the spotted character of the flower segments.

It is not commonly listed in nursery catalogs and consequently is not well-known by home gardeners. This lack of popularity may be due, in part, to the fact that the dead flowers are removed, as with iris, and as a result the seed pods cannot develop.

The most popular common name, blackberry lily, refers to the appearance of the seeds when the capsule opens and discloses the cluster of hard, shiny, black seeds. Norman Taylor makes the statement in Bailey's *Standard Encyclopedia of Horticulture* that the birds sometimes mistake the seeds for blackberries. This may explain why the plant has become naturalized in certain parts of the United States. According to Gray's *Manual of Botany* (1950 edition) it is found in the wild from Connecticut to Nebraska.

This hardy perennial grows to four feet high, and bears iris-like leaves along the stem. Flowers are 1½-2" wide, borne on short peduncles or stems. They are orange with numerous small, red spots; the chief season of bloom is July and August. The flowers are comparatively short-lived, but if not picked, the capsules or seed pods will develop. On opening in late summer or early fall, seeds show the blackberry-like appearance.

A second species, *flabellata,* with yellow flowers and blooming later than *chinensis,* is included in Bailey's *Hortus Second,* and is described briefly in *Contemporary Perennials* by Cumming and Lee. However, it is not listed in *Plant Buyer's Guide* (1958 edition) and apparently is not readily available. Neither is the blackberry lily commonly listed in American catalogs since three sources for seeds only, and six sources for plants are given in the previously mentioned *Guide.* One nursery in Massachusetts is among the six.



Like iris, plants may be propagated by seed and division. Seeds are usually sown in the spring and will germinate readily. The seedlings should come true to color since the plant is a species and will not produce variations. Seedlings should bloom the following year, but it is questionable whether any would flower the first summer. For the home gardener, propagation by division in early spring is best since the plants should bloom the same season.

Blackberry lilies give best results in an open, sunny location and will thrive in a variety of soils.

Iris borer may at times be a problem, but ordinarily this insect is not troublesome. It passes the winter in the egg stage at the base of the plant or on nearby litter. Its presence is indicated by a slimy appearance at the base of the stem in early summer. The plant may be lifted, the larva removed, and the divisions replanted. If the larva has not yet reached the fleshy root, the stem may be squeezed, thus killing the larva *in situ.*

When the larva is fully grown, it leaves the stem or root, enters the ground and pupates, emerging as a moth of the cutworm group (Macronoctua onusta). DDT dust applied in the spring will effectively eliminate the larva before it enters the stem or root. : :

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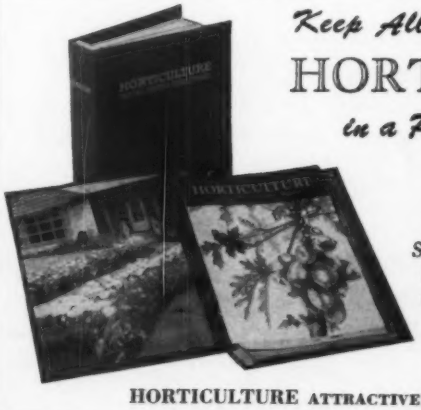

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Fallacy?

Is organic gardening harder work than alternative techniques?

Any system of gardening can be developed into a make-work project, if anyone cares to try. On the other hand, any system can be reduced to its fundamentals, and organic gardening offers vastly greater possibilities for saving time and effort than other programs. The fact that all the labor of dusting and spraying can be eliminated completely by building the soil with humus leaves no room for argument on this question.

The mistaken notion that organic gardening is hard work is due largely to an overemphasis by many organic enthusiasts on the making and using of compost. I am sure more beginners have been discouraged by this than by any other feature of organic gardening. Actually, the compost pile is not an essential element in the scheme.

Although I have the greatest admiration for the pioneering work of Sir Albert Howard, I happen to prefer mulching to conventional composting. At the same time, I recognize that the product of a well-made compost heap is one of the best fertilizers known to mankind. I do insist, however, that mulching is much easier and should be emphasized when introducing beginners to organic methods.

Later on, mulching may be supplemented with regular composting, but enthusiasm for a compost pile can hardly be expected of anyone not already sold on its virtues. :: R.V.C.

see page 482

Coming Events

from page 443

Sept. 16-17. Jersey City, N.J. 23rd Annual Fall Flower Show, Garden Club of Jersey City

Sept. 16-17. Rochester, N.Y. Dahlia Show, Rochester Museum, Arts Science

Sept. 19-20. Chicago, Ill. Central Region Meeting, The Garden Club of Illinois, Inc., Lake Shore Club

Sept. 19-21. Detroit, Mich. Harvest Festival, Mich. Hort. Soc. and Dept. of Parks & Recreation—City of Detroit, Belle Isle Casino

Sept. 20-21. Paramus, N.J. Dahlia Show, American Dahlia Society and New Jersey Dahlia Society, Garden State Plaza Auditorium

Sept. 21-23. Cleveland, Ohio. National Convention, American Rose Society, Sheraton-Cleveland Hotel

Sept. 21-23. Richland, Wash. 5th Annual Floral and Driftwood Show, Flower Fiddlers Garden Club, Community House

Sept. 24-25. New York City. Metropolitan Retail Florists' Association Annual Demonstration, Hotel Statler

Sept. 24-Oct. 9. La Canada, Calif. Festival of Garden Lights, Descanso Gardens

Sept. 25-27. Richmond, Virginia. Annual Flower Show, Virginia Dahlia Society, Old Dominion Room, Miller & Rhoads

Sept. 26. Hershey, Pa. Annual Meeting, Garden Club Federation of Pennsylvania, Hotel Hershey

Sept. 27-Oct. 1. Yakima, Wash. Central Washington Fair

Sept. 28-Oct. 1. Anaheim, Calif. Convention of California State Florists' Assoc.

Sept. 29-Oct. 1. Indianapolis, Ind. Sixth Eastern Orchid Congress, Merott Hotel

Sept. 30-Oct. 1. Baltimore, Md. Suburban Dahlia Show, Suburban Dahlia Society, West View Shopping Center

Sept. 30-Oct. 1. Northlake, Ill. Annual Flower Show—"A Spicy Story," Northlake Garden Club, Grant Park Fieldhouse ::

Dwarf Rosemary

from page 444

potted one, since copious rains play hob with the foliage.

Propagating new plants by cuttings is quick and easy. just before the flowering period begins, take short stem tips —preferably branched extremities since these develop huskier plants. Make a sharp, clean cut and dip in root-inducing hormone before plunging in moist sand.

Rare seeds also are available if you wish to start the hard way. It has been my experience that seeds from dwarf rosemary give a high rate of germination, while those of common rosemary are slow and unsure.

Thanks to the busy bees, a new semi-dwarf hybrid offspring known as *Rosmarinus officinalis forresti* has been developed. The crossbreed has somewhat more stamina than its small cousin, but has not proved as floriferous for me. It is not hardy in Southern Virginia, so I must move it from garden to cold frame in fall and back again each spring.

With a small outlay of loving care, rosemary will grace your garden or home with floral charm coupled with a pleasing, pungent aroma. : :

Trade Bricks for Flowers

from page 457

with salt hay and excelsior. The hedges are pruned in March and trimmed twice during the growing season. The accumulation of rocks gleaned from the original site holds promise of a rock garden in the future.

Each season has seen the addition of more shrubs and perennials until now there is an impressive representation of peonies, iris (bearded, Siberian and Japanese) yucca and dianthus. Additional shrubs include buddleia, kerria, tamarix, *Viburnum carlesi* and oakleaf hydrangeas. Occasional sunflowers and tall cosmos give high background color and nicotiana wafts a soft fragrance at night. Portulaca is allowed to flower and self-sow where it wants. Japanese and Chinese wisteria climb the chain link fence while *Prunus triloba* and giant hardy hibiscus color the buckthorn hedge in April and August.

The center triangle now boasts a weeping cherry tree big enough to support colored lights at Christmas. Japanese holly interplanted with yard-high breeder tulips circle the base.

The season now begins with the first crocus and ends with the last frost-enduring chrysanthemum. Each year sees the new garden become a more refreshing touch of Nature amidst the concrete and brick of the city. ::

AARS Rose Winners

from page 453

the second year after planting. Dense, shiny dark green foliage completely clothes the plant promoting a pleasant color contrast.

Golden Slippers, the fourth member of the winning quartet, was chosen for the front cover of HORTICULTURE's June 1961 issue. A striking Floribunda, it has brilliant orange-vermilion and gold petals which create a breath-taking fluorescence. This dramatic color effect is a breakthrough among Floribundas. Blossoms are borne in large, well-formed clusters and are faintly fragrant. The bush is strong, compact and neat with small, light green foliage which is in perfect harmony with the blooms. New foliage is bronze tipped.

Becoming an AARS winner is an accomplishment worthy of note in rose circles. Rigorous qualifying tests are conducted by the AARS organization for two years prior to announcing the winners. These tests are conducted at test gardens located in specific areas throughout the United States. During the two-year period each competing rose is observed and scored under various conditions by distinguished rosarians and horticulturists. Those roses consistently displaying the best performance in each test category receive the highest scores and are certified AARS winners.

The AARS organization was formed on January 9, 1939, when a national meeting was called and an active membership organized. It is a non-profit corporation.

The first trials were held in 1939 and there have been winners every year except 1951 when no entry was considered qualified to receive this high honor. In all, 59 roses have been introduced from 1940-1962. The breakdown in various categories is—36 Hybrid Teas, 16 Floribundas, 4 Grandifloras (this class was first introduced in 1955) and 3 Climbing-pillar roses. : :

Other new rose introductions for fall will be featured in October.

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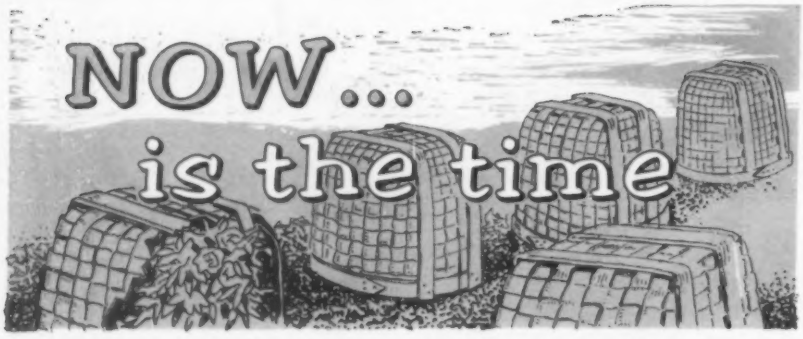


HARVEST TIME is considered to start in September, but I trust you have been harvesting beauty, flower arrangements, vegetables and enjoyment throughout the growing season.

Pick Tomatoes Before Frost

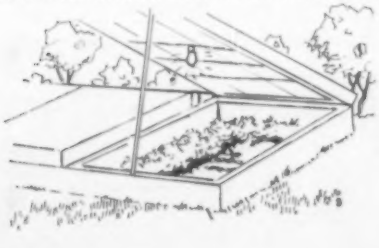
Tender vegetables should be harvested before frost. This is true of tomatoes. If many of them are green but of good size, they will ripen off the vine. Cucumbers cannot stand frost. Summer squash and beans are also finished with the first frost. If your garden is not large and you wish to continue it as long as possible, place bushel baskets, burlap, newspapers and other materials over the plants whenever frost threatens.

CORRECTION

In the August issue, under Euonymus Scale, copy should read "one pint of 50% emulsifiable malathion (not one part) to 30 gallons of water."

Cold Frame Extends Season

As fall approaches most of us who now lack a cold frame wish we had one. So much material can be transferred for many more weeks' enjoyment. Even a small amount of heat in the cold frame will keep frost out well into December. A series of 25-watt bulbs fastened to a ½" strip in the center of each 3 x 6' section of cold frame will make the frame useable well into the winter. In fact with that small amount of heat, as winter wanes seeds of annuals and vegetables can be sown to be transferred later into pots. Another method is to install a heating cable under the plants or seed and thereby stimulate more active growth sooner. But this is more expensive than electric sockets on the sash.



Root Geranium Cuttings

If you have geraniums which have been doing beautifully in the garden, do not attempt to bring them inside. Instead, take cuttings from them to grow indoors. This is simply done by filling a 6" azalea pot with sharp sand, after putting a 3" pot in the center of the azalea

pot. The hole in the bottom of the 3" pot should be plugged so the pot will hold water. The 3-5" geranium cuttings are inserted in the sand at 1½-2" intervals and the 3" pot filled with water. Sufficient water will ooze through the wall of the 3" pot to provide adequate moisture in the sand, so it is only necessary to keep the 3" pot full of water. Give the cuttings light, but no sun and you will have well rooted geranium plants within four or five weeks.

Prolong China Aster's Bloom

It is always a shame to lose chrysanthemums and China asters early. For that reason, these should be transferred to a cold frame as soon as frost becomes imminent. They will then furnish bloom for many more weeks.

Plant Under Shade Trees

There are species of trees that have dense foliage and a mass of surface roots. Because of the lack of sunlight and competition with tree roots for food and moisture, grass will not prosper under such trees. Beeches and Norway maples normally have bare soil under them, despite all efforts to maintain a grass turf. But there are plants that will grow in such a situation. English ivy and pachysandra are two of the best. Once established, they can take care of themselves.

Delphiniums In Second Bloom

At this time of year phlox are dominant in many perennial gardens. Where delphinium were not permitted to go to seed because the faded spikes were removed after first bloom, a second bloom is now at its peak. No finer combination can be found for a perennial garden than phlox and delphinium. Both will persist through mild frosts and will continue to furnish color for many weeks.

Prepare Plants For Frost

Now we should take stock of what we have gained and how we have failed so that gardening does not become stagnant but always improves. Chilly evenings are forerunners of frost. Certainly as soon as they arrive, house plants that have been transferred to the garden during the summer should be moved back to the house. Most of them cannot stand 34 to 35° without some damage.

Sow Lawn Seed Now

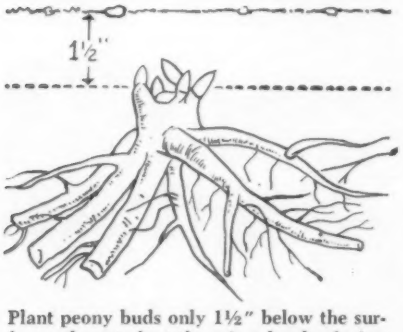
Lawn making or re-making will be more successful in late August or early September if bluegrasses and fescues are the basic lawn grasses as both grow more rapidly when the nights are cool. In most localities, because of heat, bluegrasses in particular, have been standing still for two months. Unless the turf is dense and tight, weed seeds have germinated and are taking over some of the lawn area. This is the greatest weakness of these two grasses so it is important to get them established early in fall to insure a vigorous, compact turf. They will start growing again in early spring, thereby preventing crab grass and other weeds from getting established.

Plant Evergreens Now

If evergreens are to be planted, it should be done early in September. By such timing the roots have a chance to get established before winter freeze occurs and only through the establishment of the roots can sufficient moisture be supplied to the foliage to take care of transpiration. If the roots do not supply adequate moisture, the foliage "burns." That means that desiccating winds extract more moisture from the leaves than can be replenished by the roots which results in burned or brown leaves. Late August is the ideal planting time. Then in case winter winds are severe and winter temperatures drop low, spray the foliage with an anti-desiccant in late November. One of the best is a synthetic latex diluted with water. It spreads a thin unnoticeable film over each leaf and effectively reduces moisture loss.

Check Peony Bud Depth

Lack of peony bloom is not always due to botrytis. Many plants we examined that were not blooming were buried too deep. Whether they were originally



Plant peony buds only 1½" below the surface—do not plant them in a border facing east, early morning sun can damage flower buds after a frosty night

planted deeper than is proper is questionable, but there is now such an accumulation of soil over the buds that the peony plants are not thriving. Be sure the red over-wintering buds of peonies are not more than 1½" under the soil surface. ::

Letters to Editor

from page 439

Plant Bulbs in Pots

Dear Editor—I have a method for growing certain spring-blooming bulbs, which I have never seen described. It is intended for shallow-planted bulbs such as crocus, chionodoxa, galanthus, muscari, bulbous iris, etc. Plant each bulb in a clay pot by filling the pot with rich soil nearly to the top, then pushing in the bulb. Bury the pot so bulb is the proper distance below the soil surface.

After blooming in early spring, remove the pots and partially bury them in some spare space; along a wall or fence, or among shrubbery. When the tops die down, salvage, dry and store the bulbs, until fall when planting is repeated. They increase rapidly so additional pots will be needed. Naturally, you will want to label your pots, or keep a chart.

Planting in this manner permits planting of annuals, cultivation and other operations which would displace many of your bulbs, if they were left in the ground.

GEORGE N. LANTZ, Columbus, Ohio

A Happy Subscriber

Dear Editor—First, let me congratulate you on the beautiful scenes on the cover page of your monthly magazine. Then too, the articles inside are of the highest standard as to variety of subjects that fit the ordinary gardener. I read every article. The article in the May issue, "How to Recognize and Correct the Soil Deficiency" is outstanding for the amateur gardener. I am happy that I'm a subscriber to this very splendid magazine.

ORSON A. GARFF, Logan, Utah

Pomatoes or What?

Dear Editor—In your March issue of HORTICULTURE, I read with much interest, the article on Burbank's pomato.

In my small garden I usually plant about twenty potatoes. Can you imagine my astonishment today, while dusting, to find a pomato on the potato top? There appears to be others forming. The bloom is a delicate purple with yellow stamens. Please tell me what to expect—potatoes, pomatoes or tomatoes?

HORTICULTURE brings me a great deal of pleasure each month.

MRS. ROBERT O. LEE, Kingston, Mass.

::

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"WINTER GREEN"

Our 1961 Christmas Greens Exhibition will be held at the Detroit Historical Museum December 4 through 10th.

★ ★ ★

Dates have been set for the Detroit Builders Home and Flower Show at Cobo Hall, February 23 to March 4, 1962.

★ ★ ★

Why not sign up early for your Christmas Gift Membership which will include a full year's subscription to Horticulture *and will carry an attractive Christmas Greeting.*

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Sunday	1 P.M. to 10 P.M.

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Special Advance Sale for Members 50¢
Non-members 80¢

Clippings from CLUBS and SOCIETIES

Gardener School Graduates

On August 25, the first five students of the Professional Gardener School of the Los Angeles County Department of Arboreta and Botanic Gardens will complete their training.

The curriculum studied consists of 200 lecture hours in plant culture and identification, pathology and entomology. Seven-hundred hours of on-the-job training in greenhouse, nursery and field horticulture work, and one month as an apprentice gardener in a commercial nursery company complete the course.

Graduates from this school can be the answer to nursery owners' search for trained personnel.

Horticulture Courses in New York

The Federated Garden Clubs of New York State, Inc. will sponsor the following events:

Sept. 13-15—Flower Show School, Course V, Syracuse Country House, Syracuse, Thruway Exit 36

Oct. 4-6—Flower Show School, Course I, Memorial Methodist Church, White Plains

Oct. 11-13—Horticulture School, Late Fall Course, Sibley's Upstate Room, Rochester

Oct. 17-19—School of Landscape Design, Course I, Series II, American Field Service Building, New York City

The Pennsylvania Horticultural Society

389 Suburban Station Building
Philadelphia 3, Pennsylvania

HENRY D. MIRICK, PRESIDENT
CARLTON B. LEES, DIRECTOR

SPECIAL FALL GARDEN DAY SLATED

Six informative topics will be presented by six horticultural authorities when The Pennsylvania Horticultural Society presents a special all day program, Saturday, September 23, 10:00 A.M.-4:30 P.M., at the Ambler Campus of Temple University. Many of the talks will be illustrated, and luncheon will be served.

The six informative subjects include "Garden Backbones" by Frederick W. G. Peck, a landscape architect. Mr. Peck will discuss and show slides to emphasize the importance of the structural elements of the garden (architectural and plant structures such as hedges). "Rx for an Intersting Autumn Garden" is the title of a talk by Lois Paul, (Mrs. J. Folsom Paul), at a time of the year when it is possible to do something about improving your fall garden. Mrs. Paul has been a Horticultural Society lecturer and is presently on the staff of Longwood Gardens. "Vines Are Important, Too!" by Miss Mary O. Milton, head propagator of the Morris Arboretum and a well known horticulturist, will include information about many vines and espaliered plants, a much underused group of valuable subjects.

After luncheon, Ernesta Drinker Ballard, (Mrs. Frederic L. Ballard, Jr.), will ask "Do You Really Want a Greenhouse?" She will answer this question and many more, too, for greenhouse owners, potential greenhouse owners and greenhouse dreamers. Mrs. Ballard is author of *Garden In Your House*. Since October is the best possible time to do something about spring garden bulb beauty, Gertrude Smith Wister, (Mrs. John C. Wister), assistant Director of the Tyler Arboretum and of the Scott Foundation at Swartmore, will give all attending a good start with "Daffodils and Their Companions." Richard Thomson, who started to say "A rose is . . ." has decided that roses are so much that it is not possible to describe them adequately, so he has selected the simple but promising title, "A Rose". Mr. Thomson is the author of *Old Roses For Modern Gardens*.

Student exhibits and the gardens and greenhouses of the Ambler Campus will be open to all attending.

Registration for Garden Day (including luncheon): $4.00 for members of the Pennsylvania Horticultural Society; $5.00 for all others. Write or telephone (LO3-8352) the Society to receive a registration blank. Registrations will be accepted and confirmed in the order received.

DR. FRED B. WIDMOYER JR.

Esther Longyear Murphy Medal

The Michigan Horticultural Society annually presents the Esther Longyear Murphy Medal to an individual who has made outstanding contributions to horticulture in Michigan. This year it goes to Dr. Fred B. Widmoyer Jr. professor of horticulture at the University of Connecticut.

Dr. Widmoyer studied advanced horticulture at Michigan State University, where he did research in ornamental horticulture. He devoted much time and effort to youth activities in the extension program—mainly 4-H and FFA groups.

He is past editor of the Michigan State Nursery Notes and is a member of the American Society for Horticultural Science and several honor societies. Dr. Widmoyer is currently editor of the "Connecticut Arborist," published by the Connecticut Tree Protective Association.

Award to Dr. Richard White

"Awarded to Dr. Richard P. White By his Friends in the field of Horticulture For his many contributions to the world of Horticulture and Gardening over the years" . . . so reads the inscription on the Paul Revere silver bowl presented to Dr. White by a group of his close friends. Seth Kelsey made the presentation.

The American Association of Nurserymen, at their annual meeting, gave Dr. White and his wife a trip around the world.

Horticultural Congress

The 16th Horticultural Congress of the American Horticultural Society will be held Oct. 25-28 in Northampton, Mass. A detailed program, registration blanks and travel information will be mailed to all American Horticultural Society members by mid-September. Non-members are welcome and anyone wishing more information should write to Congress Headquarters, Northampton Hotel.

"Echoes of East" Show

"Echoes of the East" will be the theme of the flower show to be held Sept. 16 by the Farmington Garden Club in Farmington, Michigan. The show will emphasize the Eastern influence in decorating today's home.

N.E. Meeting of the A.R.G.S.

New officers were elected at the annual meeting of the New England unit of the American Rock Garden Society in Auburn, Maine, last May 28.

Chairman—Mrs. Albert Hunkins, Plaistow, N.H.
Vice-Chairman—Mrs. Henry Gilbert, Danielson, Conn.
Sec-Treasurer—Mrs. Harold Stillwell, Woodstock, Vt.
Executive Comm.—Mrs. Alfred Pease, Mr. Burr Bronson, Mrs. Sidney Baylor, and Mrs. James Funkhouse
Librarian—Mrs. Alfred Pease
Robin Director—Mrs. Harold Stillwell
Program Director—Mrs. Henry Gilbert

The Dwight Grangers showed slides of their European trip and Grace Butcher showed slides of the Western United States. After the meeting a picnic and plant auction were held. A membership list will be printed and sent to all members.

Annual Harvest Show

The 132nd Harvest and Chrysanthemum Show of the Massachusetts Horticultural Society will be held in Horticultural Hall, Boston, on Oct. 19-22.

Director of Exhibitions, Arno H. Nehrling looks for the usual fine displays of fruits, vegetables, chrysanthemums and house plants. According to Harold D. Stevenson, Exhibition Committee chairman, all entries must be filed at Horticultural Hall on or before Oct. 9. All exhibitors must be members of the Horticultural Society. The rule book will be sent upon request to prospective exhibitors. For additional information, write to: Arno H. Nehrling, 300 Massachusetts Ave., Boston.

Fall Gardening Courses

The Massachusetts Horticultural Society will again sponsor courses this fall for beginning gardeners. Outdoor Practical Gardening, Course II, will be a continuation of Course I held this spring. Classes will be held at the home of the instructor, Mrs. Lucien Taylor in Dover on Sept. 11, Oct. 2 and 9. The sessions will be from 10 a.m. to 3 p.m. Students should bring a box lunch. Fee for the course is $12 for members of the Society and $14 for non-members.

For people who have completed Course I anytime previously, Outdoor Practical Gardening Course II will be held Oct. 10, 19 and 26. Other details are the same as above.

Greenhouse Gardening Course will meet at Horticultural Hall on the mornings of Oct. 20, 27 and Nov. 3, 10 and 17 from 10-12 a.m. The course will cover growing plants in pots as well as small greenhouse management. One of the sessions will be a field trip to be decided upon by the students. Fee for the course is $12 for members, $14 for non-members.

To enroll, write and send registration fee to: Mrs. Laura Hatton, Massachusetts Horticultural Society, 300 Massachusetts Ave., Boston 15, Mass.

Marketing in Action

The National Association of County Agricultural Agents will have their 46th annual meeting Sept. 10-14 at the Waldorf Astoria Hotel in New York City. "Marketing in Action" will be the main theme of the conference. Among the featured speakers will be Prof. Herrell DeGraff, agricultural economist from Cornell University; New York's Governor Nelson Rockefeller; Dr. E. T. York, Federal Extension Service Administrator, and others. Three panels will be held—"New Horizons in Marketing," "New Challenges in Marketing for County Agents" and "Marketing in Action for Youth."

Conference of N.Y. Garden Clubs

The eleventh annual Fall Conference of the Federated Garden Clubs of New York State, Inc., will be held Sept. 24-26 at Upper Saranac Lake, New York.

One of the featured speakers will be M. "Buddy" Benz of Houston, Texas, who will talk on "Flowers, Free Form, Interpretive Design." Dr. Richard H. Pough of the Nature Conservancy, Washington, D.C., will also speak.

Noannet Club Sale and Tour

The Noannet Garden Club will have its fall plant sale and garden tour at the home of Mrs. George Lewis Jr. in Sherborn, Mass., on Sept. 26. The sale will begin at 10:30 and house plants, bulbs, wild flowers, rhododendrons and garden accessories will be sold. Lunch will be from 12-2 p.m. and the tour from 2-4 p.m. Price of the tour is fifty cents. ::

THE PENNSYLVANIA HORTICULTURAL SOCIETY

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CLIP AND MAIL

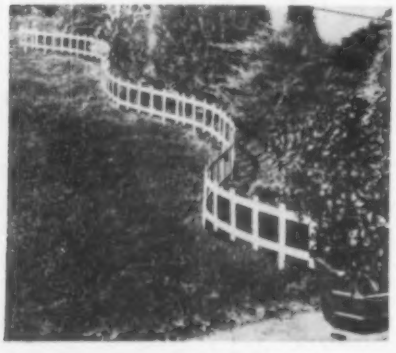
what's CURRENT

Sources of plants, seeds or new products mentioned here or in future issues of HORTICULTURE are available from the Editor.

Flexible, Durable, Fiberglass Fence

A NEW, easily installed white fiberglass picket fence makes a neat finishing trim for gardens and border plantings.

The fence flexes and bends to fit any contour and comes in 5' sections which may be joined to accommodate any length. The white color is molded through the fiberglass to eliminate fading. Rustproof aluminum rivets make the entire product impervious to weather. Except for an occasional spraying with the garden hose to clean off dust and debris, no maintenance is required.



Sharpen Rotary Mower Blades

Has constant use during the growing season taken the edge off your rotary mower blade? If so, consider the Roto Sharp rotary lawn mower sharpener. Roto Sharp is an abrasive grinding wheel designed to put a keen cutting edge on the rotary blade without removing it from the mower. Merely raise the mower on its side and grind. The grinder removes nicks and burrs and gives a smooth even edge to both sides of the blade.

The grinding wheel easily attaches in any ¼", ⅜" or ½" electric drill. A bevel on the wheel insures the correct sharpening position. The tool is also useful for sharpening grass and hedge shears, hoes and other garden tools having a cutting edge.

Organic-Based Fertilizer Sticks

A series of four individually formulated, organic base solid fertilizer sticks has been developed to meet specific plant needs.

Known as the Gard-N-Stik fertilizers, the four formulas available are—6-8-6 for annuals; 12-8-6 a general purpose food for roses and trees; 6-12-12 designed for evergreens and ornamental shrubs, and 5-4-4 for African violets and other house plants. Formula figures indicate the percentage of nitrogen, available phosphoric acid and potash.

To apply the fertilizer stick, make a hole in the soil at the base of the plant with the supplied applicator, or a pencil, and insert the stick. One application is designed to last several months since the sticks release their nutrients slowly. Proper watering at intervals is important for best results.

Tubular Fertilizer Dispenser

Stooping and bending when applying fertilizer or snail and slug bait may now be eliminated with the introduction of Justin's tube dispenser.

The new garden aid is 40" long, with a 1½" barrel and weighs less than two pounds. Granulated fertilizer or bait is loaded into the dispenser in pre-regulated amounts. An easy push on the ground releases the contents exactly where you want them. Waste and leaf burn caused by scattering fertilizer on plant leaves is eliminated. ::

Fallacy

from page 476

Do chemical fertilizers yield quicker results than organic ones?

To begin with, comparisons mean nothing unless they are made over a whole growing season. The fact that ammonium nitrate, for instance, will turn yellow cornstalks green in only a day or two has no significance in this connection. The stalks would have been green all the time if they had been grown by organic methods. No evidence has been offered that chemical fertilizers reduce the number of days to maturity appreciably, which would be the relevant point.

In the second place, it is not true that the rapid action of a chemical like ammonium nitrate cannot be duplicated by organics. Try some cow or hen manure on yellow cornstalks and see how long it takes them to acquire a dark-green color. Remember, too, that applications of strong chemicals are typically followed by thorough irrigation, and that manure should be similarly "watered in" when comparisons are being made. :: R.V.C.

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The Massachusetts Horticultural Society
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Please enroll.....
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HORTICULTURE'S Garden Club Yearbook Contest

THE FINEST in garden club yearbooks again will be honored in a contest for 1960-61, according to editors of HORTICULTURE magazine, which annually sponsors the contest, the only national competition of its kind. Prizes will be $35 for the first place winner, $25 for the second, $15 for the third and $10 each to five honorable mentions.

All garden clubs are eligible except winners of the 1959-60 competition, previously announced in the January issue. They may compete again, however, in the 1961-62 contest. No federations or other regional groups come within the scope of the contest. Yearbooks must reach the offices of HORTICULTURE, 300 Massachusetts Ave., Boston 15, Mass., on or before October 15, 1961.

The yearbooks will be judged by the following scale of points, which total 100.

1. Objectives—a. To stimulate interest in gardening. b. To contribute through gardening to local needs—20 points.

2. Activities—a. Member participation, 20; b. Course of study, 10; c. Civic project, 10; d. Flower show, 10; e. At least one authoritative speaker, 5; f. Garden visit, 5.

3. Yearbook—a. Contents, 15; and b. Appearance, 5.

1. OBJECTIVES: The value of a garden club lies in its efforts to make its members better gardeners and to contribute to the community through club activities.

2. ACTIVITIES: There should be a variety of activities, and a plan for encouraging every member to share in at least one meeting or project. Many of these activities will change in form and scope with the growth of the club. For instance, a small club will find every-member participation easy, but may limit its study project to a single meeting. A large, well-established group should have one or more season-long study projects in addition to meetings.

Civic projects will vary with local needs and resources. Imagination and good will are more important than financial outlay. Typical work is done in horticulture, conservation, landscaping, civic development, shade tree planting, hospital therapy, and support of work with scout troops, school gardens and junior garden clubs.

A flower show is not necessarily a formal display with elaborate classes and prizes. Simple arrangements, collections of varieties, flowering or fruiting shrubs, or anything else that illustrates the topic of the day should be shown as often as possible. The one essential is that, however planned, beauty of staging and educational value are both kept in mind.

As to speakers, the most successful clubs prepare many of their own programs, but occasional guest speakers make a welcome variety. Such speakers are sometimes expensive, but a joint meeting with neighboring clubs can be a friendly way of sharing expense.

Garden visits may give members a chance to enjoy one anothers' gardens, to spend a day at a bird or wild flower sanctuary, or to see a local nursery or garden center. The timing of such visits will naturally be planned at the convenience of the host, who may have a busy peak season in his regular work.

THE YEARBOOK: Its contents should include a) the full name and address of the club, including town and state; b) lists of officers and committees; c) officers and committee chairmen of the state garden club federation; d) a membership list of the club with addresses; e) program of meetings; f) reports on activities in addition to meetings; g) constitution and by-laws (optional).

Formal constitution and by-laws are not essential, for a small club can function successfully without them.

Literary quotations and bits of gardening information are not considered in judging.

Items e) and f) tell the judges how well the club year is planned and carried out. Both items are important, for some of the most effective work of the club goes on outside the framework of the regular meetings. The reports may be put into the record by printing the last annual report of the president or secretary, or by writing a short informal account. Secretaries have often sensed this need and sent explanatory letters with their yearbooks for the competition, but such letters are not considered in judging, for the information belongs in the yearbook itself.

The appearance of a book depends on good taste and neatness, not on expensive paper and elaborate printing. Mimeograph, offset, typewriting and blueprint do as well as printing. Paper and covers must be durable enough to keep their appearance through a year's use. The size should be convenient for carrying, and design, and color and illustrations (if any) should be in good taste. Scrap books are not accepted ::

New Roses

from page 468

Lavender, a relatively new color among Hybrid Teas and Floribundas in recent years, has now been bred into the climbers to produce Royal Lavender (J&P), a dusty-lavender, dove-gray origination. Royal Lavender is distinctive in that it possesses an unusual lilac fragrance that is delicate yet intense. After the initial flowering, lateral buds develop producing a profusion of clusters containing 5-10 buds each. Fully double flowers average 3-4″ across. Foliage is reddish-bronze later turning to a dark green. Pigmy Lavender (J&P) is the latest addition to the Pigmy family which began with Pigmy Gold, and adds another color range to this unique class. The delightful flowers are only 1½-2″ wide—they make perfect boutonnières. Completely winter hardy, the plants grow no higher than 12″ and spread 18-24″ at maturity making them ideal as potted plants or border accents. Foliage is dark.

Rose Bowl (J&P) an attractive red Hybrid Tea was created and named to honor the famous Bowl that yearly pays homage to the beauty of roses. This dramatic eye-catcher has double blooms 5-6″ wide which have an intense luminous color. Boasting a classic Hybrid Tea form, its fragrance is pleasant and refreshing. Buds are urn-shaped and high-centered, later developing into perfect blossoms borne on long, sturdy stems. Plants grow tall and have abundant, soft green foliage.

Rosarians seeking a good dark red rose will find the new Hybrid Tea Black Velvet (J&P) an excellent choice. Sporting a deep wine-red color with velvety sheen, the blossoms have an arresting perfume. The large, semi-double flowers reach 5½″ in diameter, opening from high-centered buds on long stems. Plants grow to 3′ and have thick, leathery foliage.

Peaceport (W) is the first sport of Peace, not a hybrid or seedling but a change—a mutation—a true sport of Peace. Peaceport shows all the characteristics of Peace, a strong growth and glossy foliage plus a distinct change in color. It is a bright, glowing salmon-pink entirely different from Peace which should make an attractive addition to any rose collection.

Climbing Circus, (A) was bred from the original Circus Floribunda previously introduced in 1956. The climbing introduction has unique tone of yellow, pink and scarlet reaching out from graceful, arching canes. The tight, urn-shaped buds open to clustered blossoms measuring up to three inches across. It will bloom all through season. ::

New BOOKS

Books reviewed on these pages may be ordered from HORTICULTURE's Book Dept., 300 Mass. Avenue, Boston 15, Mass.

Seasonal Arrangements

FLOWER ARRANGEMENTS IN COLOR *by Violet Stevenson, The Viking Press, New York 22. 71 pp. $2.98*

This slim volume includes 24 full-color plates of flower arrangements that successfully illustrate color-blending and harmony as presented by the author. The text contains a wealth of information valuable to any arranger. Proportion and the relationship of flowers to container and background are clearly and pleasingly discussed. The four seasons form the basis for presenting the superb color plates, each with a commentary on the plant material used, the methods employed and the reasons for the arrangement. It should have many partisans among successful flower arrangers.

For Orchid Fanciers

NATIVE ORCHIDS OF TRINIDAD AND TOBAGO *(Volume 3 of Botany Division of the International Series of Monographs on Pure and Applied Biology) by Dr. Richard Evans Schultes, Pergamon Press, New York 22. $15.00*

As a connecting link between the orchid flora of the West Indies and the contemporary floras of Northern South America, of which Venezuela and Peru are not in the process of investigating, we warmly welcome the present volume.

Most appropriate is the dedication to Prof. Oakes Ames, the greatest American orchidologist. The section "Orchids in Trinidad and Tobago and their Collectors," which comprises a detailed discussion of the Islands, their explorers and collectors from the time of Grisebach in 1864 to the present, is a most interesting account. A terse description of the concept, Orchidaceae, with a simple and easy-to-use key to the genera represented in the Islands is given.

The main body of the text treats the genera in phylogenetic order and the species in alphabetical order. Full synonymy precedes the adequate descriptions which are accompanied by appropriate notes wherever available, such as the flowering date, the general range of the species and the citation of the collections made in the two islands.

Interspersed throughout are photographs of the inflorescences or flowers of many species. Some of these are excellent while others are blurred and obscure. In one case, doubtless due to haste in the printer's set-up, a photograph purporting to illustrate *Stelis muscifera* actually portrays *Pleurothallis diffusa* which is elsewhere correctly pictured.

So many of the species included and lucidly described are a part of every horticulturiest's concept of tropical orchids that the book is of value to all who are interested in the floras of the West Indian region.

Charles Schweinfurth
Botanical Museum
Cambridge, Mass.

Expert Landscaping Advice

GOLDEN GUIDE TO LAWNS, TREES, AND SHRUBS *edited by John Strohm, Golden Press, Inc., New York 20. 176 pp. $1.00*

Forty million families tend lawns, plant ornamentals and do many other jobs to beautify and improve their grounds. Many home gardeners aren't experts but this book gives you eight horticultural authorities' advice on many landscaping problems. With the simple directions, diagrams, drawings, lists and colored pictures illustrating the book, your landscaping venture will undoubtedly be a success.

Make Exquisite Corsages

MAKE YOUR OWN CORSAGE *by Dora Maud Aldridge, Dorrance & Company, Inc., Philadelphia, Pa. 127 pp. $3.00*

This is a perfect do-it-yourself book on making corsages with a professional touch —and they'll be made by you! The 42 illustrated corsages will supplement your ideas on flowers suitable for every occasion. The author gives hints and tips that are easy to follow—both right's and wrong's are given. With this book as your guide you will be the connoisseur of corsages in your community.

Advice on Home Fruit Growing

FRUITS IN THE HOME GARDEN, *Brooklyn Botanic Garden, Brooklyn 25, N.Y., 96 pp. $1.00*

This book, designed to help amateur gardeners, is a complete guide to selecting and growing all kinds of fruit. Authorities in the USDA, various state colleges and experiment stations in this country and Canada have contributed to the book. The selection of varieties especially suited to home gardens is stressed. Choice varieties are recommended for the Northeast, Midwest, Great Plains, West and tropical and subtropical regions.

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Traveling Tips for Rose Bushes

Doris W. Weinsheimer
Philadelphia, Pennsylvania

If you're about to move to a new home, you can take your rose bushes with you. If you consider their simple cultural requirements, they'll quickly adapt to a new location, especially if the change occurs between October and December.

That is the perfect season in which to move them because their sap flows toward warmth. In fall and early winter the ground having stored heat all summer remains warmer than the air. So, the sap descends into the roots causing the leaves and tiny fibrous roots to die. But the plant remains active and soon prepares for the next season by growing new fibrous roots to expand the feeding system.

To prepare for the move, collect as many bushel fruit baskets as you have roses, and line them with newspaper. Next, cut your rose plants back about 18″; cut tree roses back to within 8″ of the crown (top of trunk).

Choose a windless, cloudy day to dig up the roses. Use a regular spade and remember to keep a healthy distance from the main cane above ground in order to prevent root damage. Then fill a quarter of every basket with peat moss and gently place a plant in each and cover with a thick, closely packed blanket of peat. It is impossible to completely cover tree roses, but straw stuffed between the branches and a topping of burlap will provide them with an excellent traveling suit.

If you reach your destination before the end of December, plant the roses immediately. Cut off any broken or bruised roots and shorten any which are too long to spread out naturally. Make a fresh cut at the end of each root to promote a fibrous growth. This will cause a callous to form at each cut, from which a network of new feeding roots will grow.

Dig the planting hole large enough to accommodate the roots without twisting or cramping. Form a cone of topsoil at the bottom of the hole and spread the roots down and over the cone in their natural growing position.

Never plant your roses too deep—set them just a little deeper than they stood previously.

Work the soil around each root to prevent air pockets, then gradually firm it down until the hole is half full. Tamp the soil with your feet to make it firm and fill the depression with water. Let the water settle the soil for several hours, then fill again to within 6″ of the top.

Water again after a day or two when the soil has settled and if it's cold and likely to freeze, provide a light mulch to prevent heaving.

If moving day takes place from January to March, frozen ground may be a problem. But moving may be accomplished by pruning and digging your roses in late December exactly as previously mentioned, being especially gentle with those tiny white rootlets. Wash the canes and roots clean with a fine spray. Then fill a large pail ⅔ full of 80° water and pour in a pound of melted paraffin wax. Dip the entire rose in and remove slowly so the floating wax coats it thoroughly.

Roots store energy when tops are cut back

Photos by Jackson & Perkins Co.
Care when replanting the bushes will pay off in vigorous roses later

—just like they never left home

After the wax hardens, pack the roses in peat moss and set in a cool area where the temperature is about 35°. Remember, they must be warm enough not to freeze, yet cool enough not to shrivel and dry. Let them lay dormant until the end of March then plant and treat them exactly like roses received from the nursery.

From April to June you must be careful to guard against excess drying from the sun and wind. Do your digging and planting on calm, cloudy days, and leave some soil on the roots.

Do not prune spring-planted roses in spring. The pruning they received prior to digging is sufficient until they thoroughly adapt to new surroundings.

Plant roots "inhale" moisture from the soil and "exhale" it through their leaves. In spring the ground is slow to absorb heat and warm air draws the sap upward causing natural foliage growth. Since pruning stimulates this growth, the sap is drawn up faster than the roots can supply it, and the plant succumbs from sheer exhaustion.

When watering, make a moat around each newly planted bush. Every evening, after the sun goes down, fill the moat with water until your roses are completely adapted to their new home.

From July to September I always try to place roses moved in summer in a spot which only has morning sun. In late fall I move them to their permanent place in the garden. Again, do not prune except to remove any blooms or leaves which die en route or after the bush has been planted. ::

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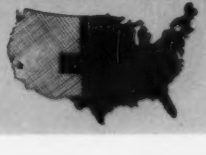

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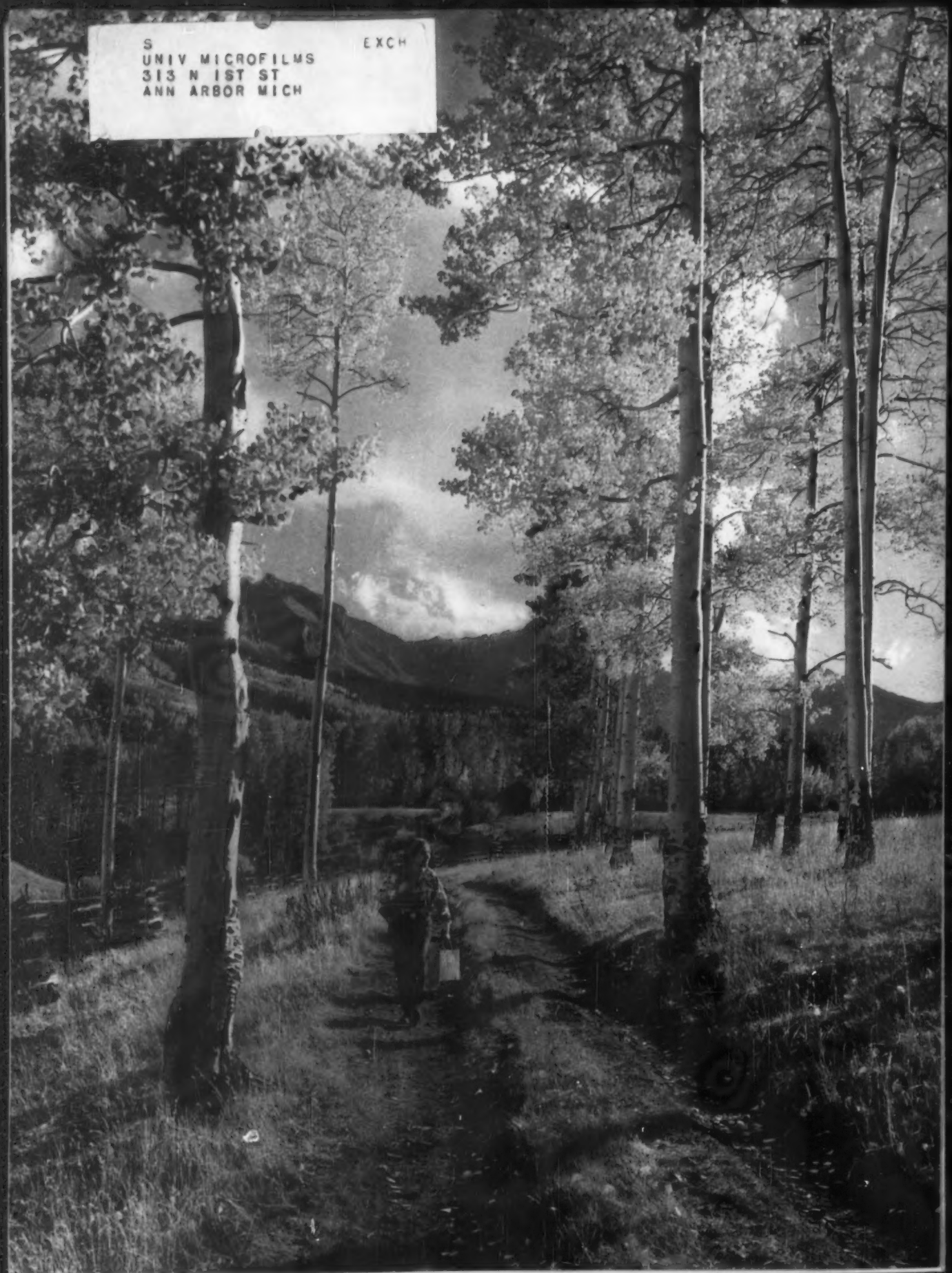
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